

CELL / MODEL NAME	DESCRIPTION	DATE
PBT-1-0 no skew	Super Plan & X-Sect bulb-T no skew	10/22/2004
PBT-1-D	Superstructure details for bulb T beams	10/22/2004
PBT-1-L greater than 15 degrees	Super Plan & X-sect > 15 degrees ahead left	10/22/2004
PBT-1-L less than 15 degrees	Super Plan & X-Sect <15 degrees ahead left	10/22/2004
PBT-1-R greater than 15 degrees	Super Plan & X-sect > 15 degrees ahead right	10/22/2004
PBT-1-R less than 15 degrees	Super Plan & X-sect < 15 degrees ahead right	10/22/2004
PBT-2DDI	Diaphragm details for bulb T beams	10/22/2004
PBT-2DI	Diaphragm details for bulb T beams	10/22/2004
PBT-2F	Diaphragm details for bulb T beams	10/22/2004
PBT-2J	Diaphragm details for bulb T beams	10/22/2004
PBT-4-63	63 inch PPC bulb T beam	10/22/2004
PBT-4-72	72 inch PPC bulb T beam	10/22/2004
PBT-E	Top of slab elevations for PPC bulb T beams	10/22/2004
PD-1-L	11 X 48 inch deck beam ahead left	10/22/2004
PD-1-R	11 X 48 inch deck beam ahead right	10/22/2004
PD-1-S	11 X 48 inch deck beam no skew	10/22/2004
PD-2-L	11 X 52 inch deck beam ahead left	10/22/2004
PD-2-R	11 X 52 inch deck beam ahead right	10/22/2004
PD-2-S	11 X 52 inch deck beam no skew	10/22/2004
PD-3-L	17 or 21 x 36 inch deck beam ahead left	10/22/2004
PD-3-LA	17 or 21 x 36 inch deck beam ahead left	10/22/2004
PD-3-R	17 or 21 x 36 inch deck beam ahead right	10/22/2004
PD-3-RA	17 or 21 x 36 inch deck beam ahead right	10/22/2004
PD-3-S	17 or 21 x 36 inch deck beam no skew	10/22/2004
PD-3-SA	17 or 21 x 36 inch deck beam no skew	10/22/2004
PD-4-L	17 or 21 x 48 inch deck beam ahead left	10/22/2004
PD-4-LA	17 or 21 x 48 inch deck beam ahead left	10/22/2004
PD-4-R	17 or 21 x 48 inch deck beam ahead right	10/22/2004
PD-4-RA	17 or 21 x 48 inch deck beam ahead right	10/22/2004
PD-4-S	17 or 21 x 48 inch deck beam no skew	10/22/2004
PD-4-SA	17 or 21 x 48 inch deck beam no skew	10/22/2004
PD-5-L	27 or 33 x 36 inch deck beam ahead left	10/22/2004
PD-5-R	27 or 33 x 36 inch deck beam ahead right	10/22/2004
PD-5-S	27 or 33 x 36 inch deck beam no skew	10/22/2004
PD-6-L	27 x 48 inch deck beam ahead left	10/22/2004
PD-6-R	27 x 48 inch deck beam ahead right	10/22/2004

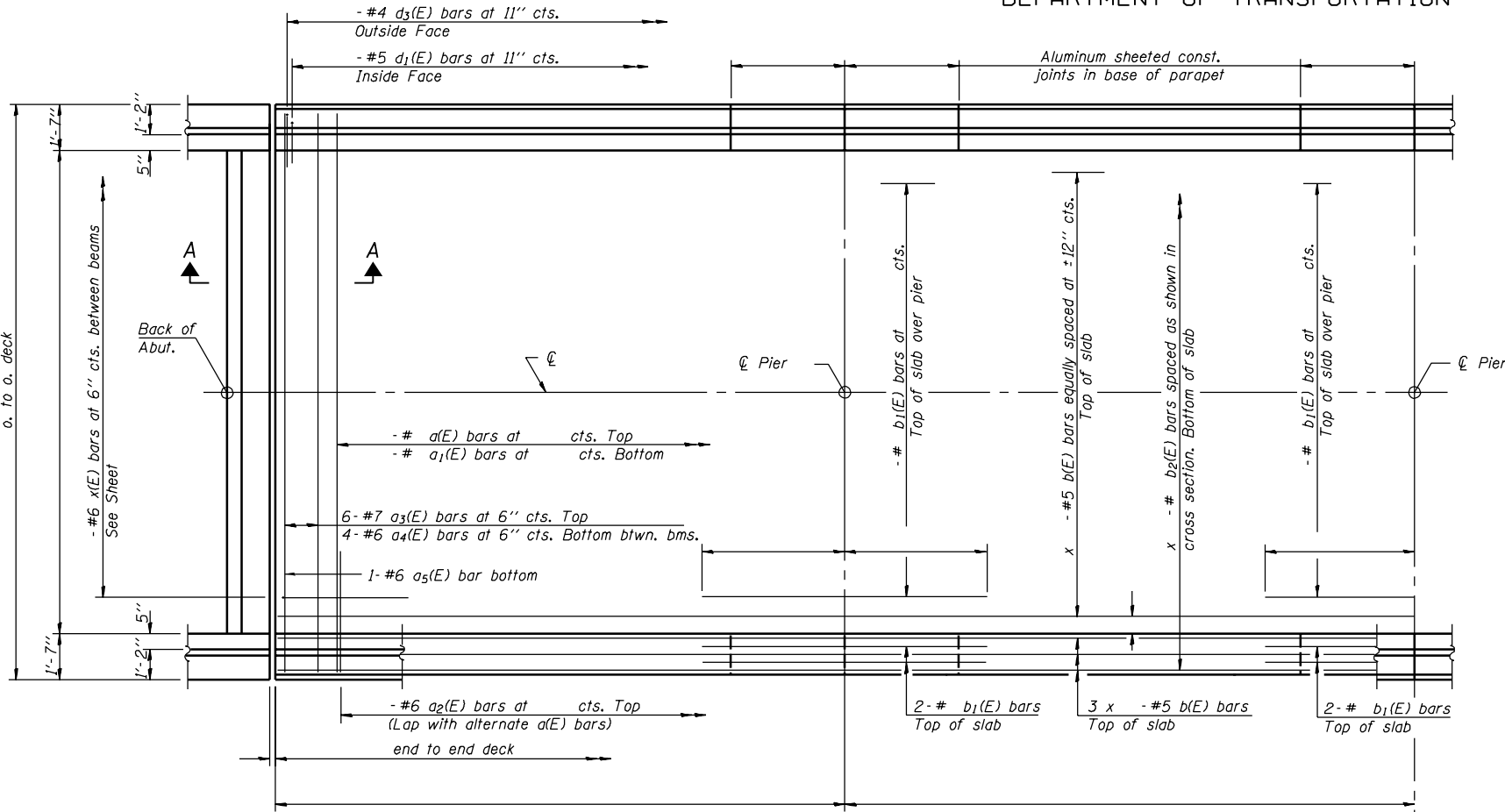
CELL / MODEL NAME	DESCRIPTION	DATE
PD-6-S	27 x 48 inch deck beam no skew	10/22/2004
PI-1-0 no skew	Super Plan & X-sect no skew	10/22/2004
PI-1-D	Superstructure details for PPC I beams	10/22/2004
PI-1-L greater than 15 degrees	Super Plan & X-sect > 15 degrees ahead left	10/22/2004
PI-1-L less than 15 degrees	Super Plan & X-sect < 15 degrees ahead left	10/22/2004
PI-1-R greater than 15 degrees	Super Plan & X-sect > 15 degrees ahead right	10/22/2004
PI-1-R less than 15 degrees	Super Plan & X-sect < 15 degrees ahead right	10/22/2004
PI-2DDI	Diaphragm details for PPC I beams	10/22/2004
PI-2DI	Diaphragm details for PPC I beams	10/22/2004
PI-2E-1	Type I elastomeric bearing	10/22/2004
PI-2E-2	Type II elastomeric bearing	10/22/2004
PI-2E-3	Type III elastomeric bearing	10/22/2004
PI-2F	Diaphragm details for PPC I beams	10/22/2004
PI-2FB	Fixed bearing	10/22/2004
PI-2J	Diaphragm details for PPC I beams	10/22/2004
PI-4-36	36 inch PPC I beam	10/22/2004
PI-4-42	42 inch PPC I beam	10/22/2004
PI-4-48	48 inch PPC I beam	10/22/2004
PI-4-54	54 inch PPC I beam	10/22/2004
PI-E	Top of slab elevations for PPC I beams	10/22/2004

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

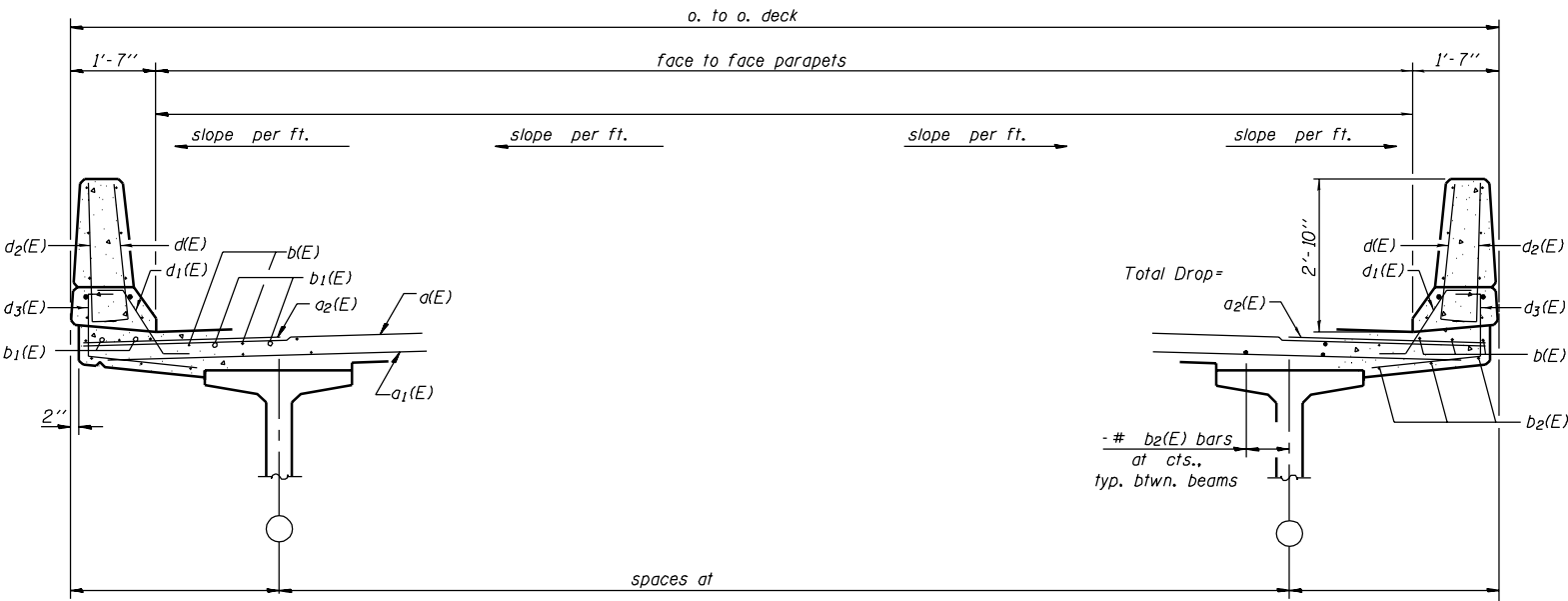
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
- SHEETS

Contract #



PARTIAL PLAN



CROSS SECTION
(Looking -)

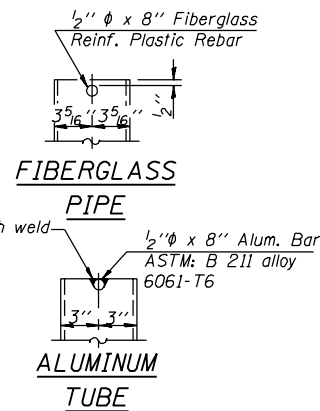
Notes:
See sheet of for superstructure details and Bill of Material.
For Section A-A and diaphragm details see sheet of .
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



6"

3" 3"

3/16"

6" O.D. Aluminum Tube
alloy 6061-T6 or
2" ϕ Fiberglass Pipe

TOP PLAN

(Showing Aluminum Tube)

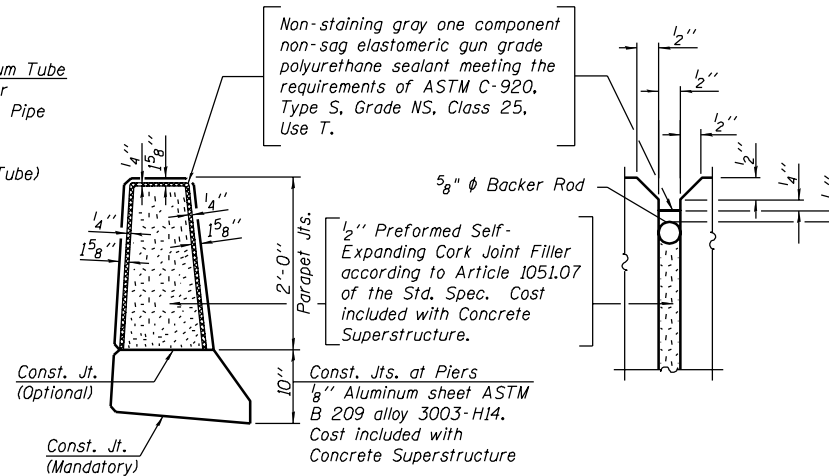


Diagram of a frame structure. The horizontal beam has a length of 6". The inclined member has a length of 11.5". The horizontal distance from the column to the end of the beam is 9' 4". The vertical distance from the column to the joint is 4". The beam is labeled BAR $d_1(E)$.

A diagram showing a rectangular area. The vertical dimension is labeled 2'-6" and the horizontal dimension is labeled 6".

The diagram shows a stepped cantilever beam fixed to a wall on the left. The beam has a vertical section of height 1'-2" and a horizontal section of length 6". A vertical section cut is indicated at the free end of the horizontal section, with arrows pointing to the cut surface.

Bar	No.	Size	Length	Shape
a(E)				_____
a ₁ (E)				_____
a ₂ (E)		#6	6'-6"	_____
a ₃ (E)		#7		_____
a ₄ (E)		#6		_____
b(E)		#5		_____
b ₁ (E)		#6		_____
b ₂ (E)				_____
d(E)		#5	3'-0"	—┘
d ₁ (E)		#5	2'-5"	└
d ₂ (E)		#4	3'-0"	—┘
d ₃ (E)		#4		└
e(E)		#4		_____
e ₁ (E)		#4		_____
m(E)		#4		_____
m ₁ (E)		#6		_____
m ₂ (E)		#8		_____
s(E)		#4		└┘
x(E)		#6		└_____
Reinforcement Bars, Epoxy Coated			Lbs.	
Concrete Superstructure			Cu. Yds.	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

Diagram illustrating a repair method for a pipe using a 6" ϕ Pipe Clamp and a $\frac{1}{8}$ " Fabric Pad. The clamp is shown around the pipe, with the fabric pad positioned between the clamp and the pipe wall. The diagram also shows the clamp being secured with bolts and nuts, and the fabric pad being secured with a screw and nut. A vertical dimension line indicates the distance from the center of the pipe to the center of the clamp, marked with an asterisk (*).

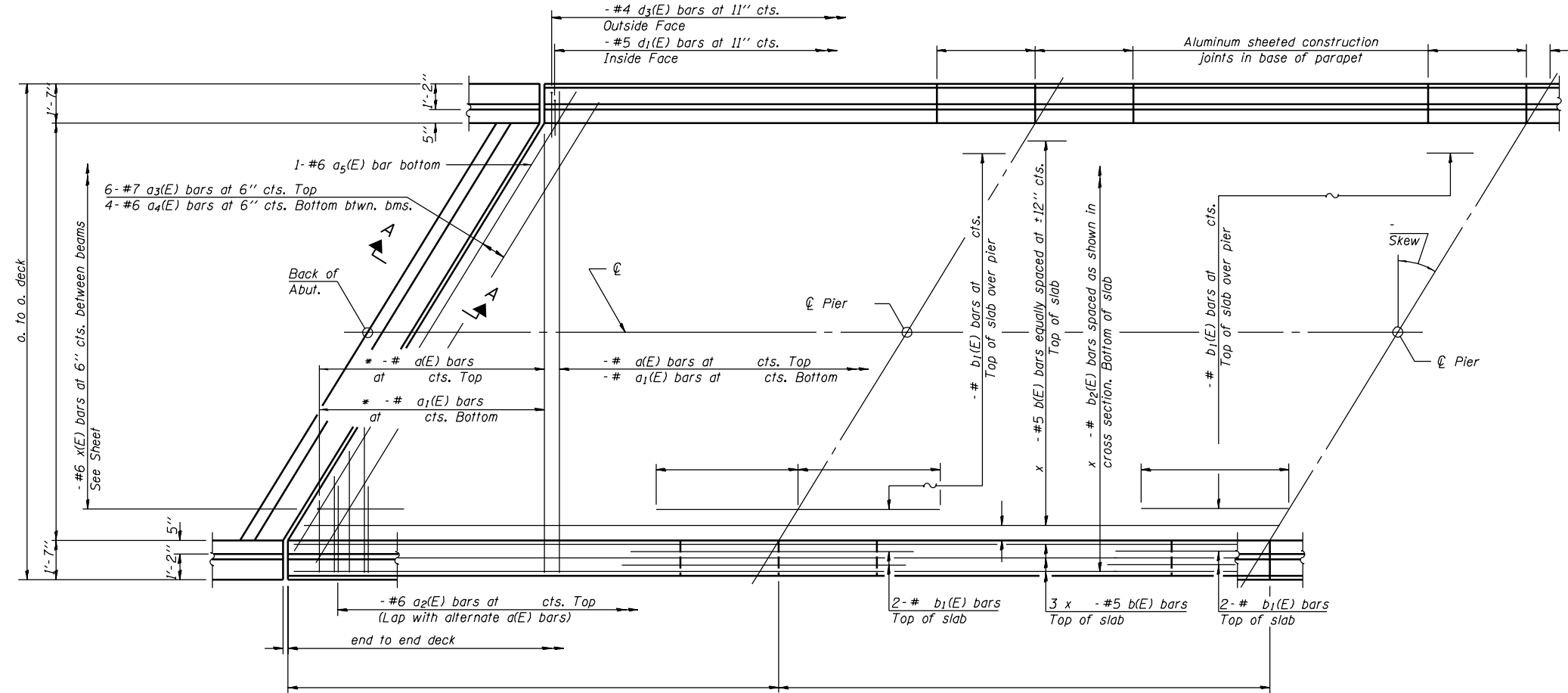
SECTION A-A

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

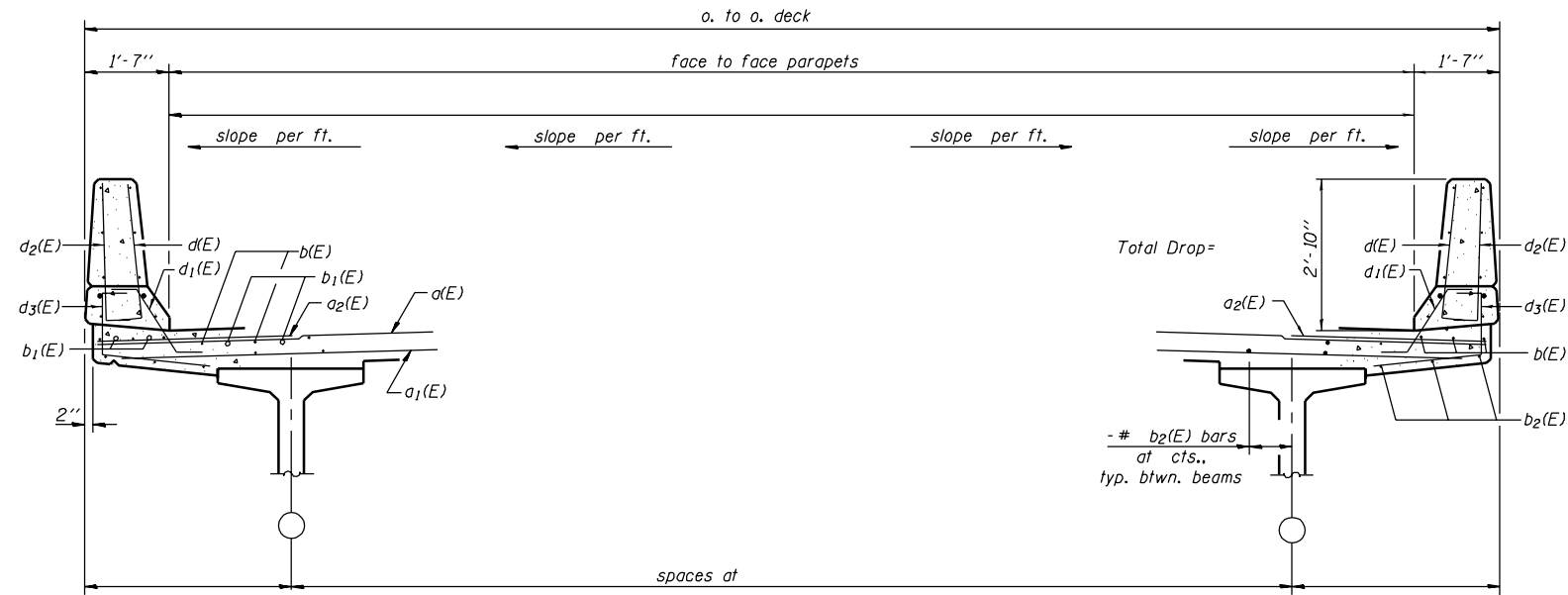
SHEET NO. -
- SHEETS

Contract #



*Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

PARTIAL PLAN



CROSS SECTION
(Looking

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Reinforcement bars designated (E) shall be
epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

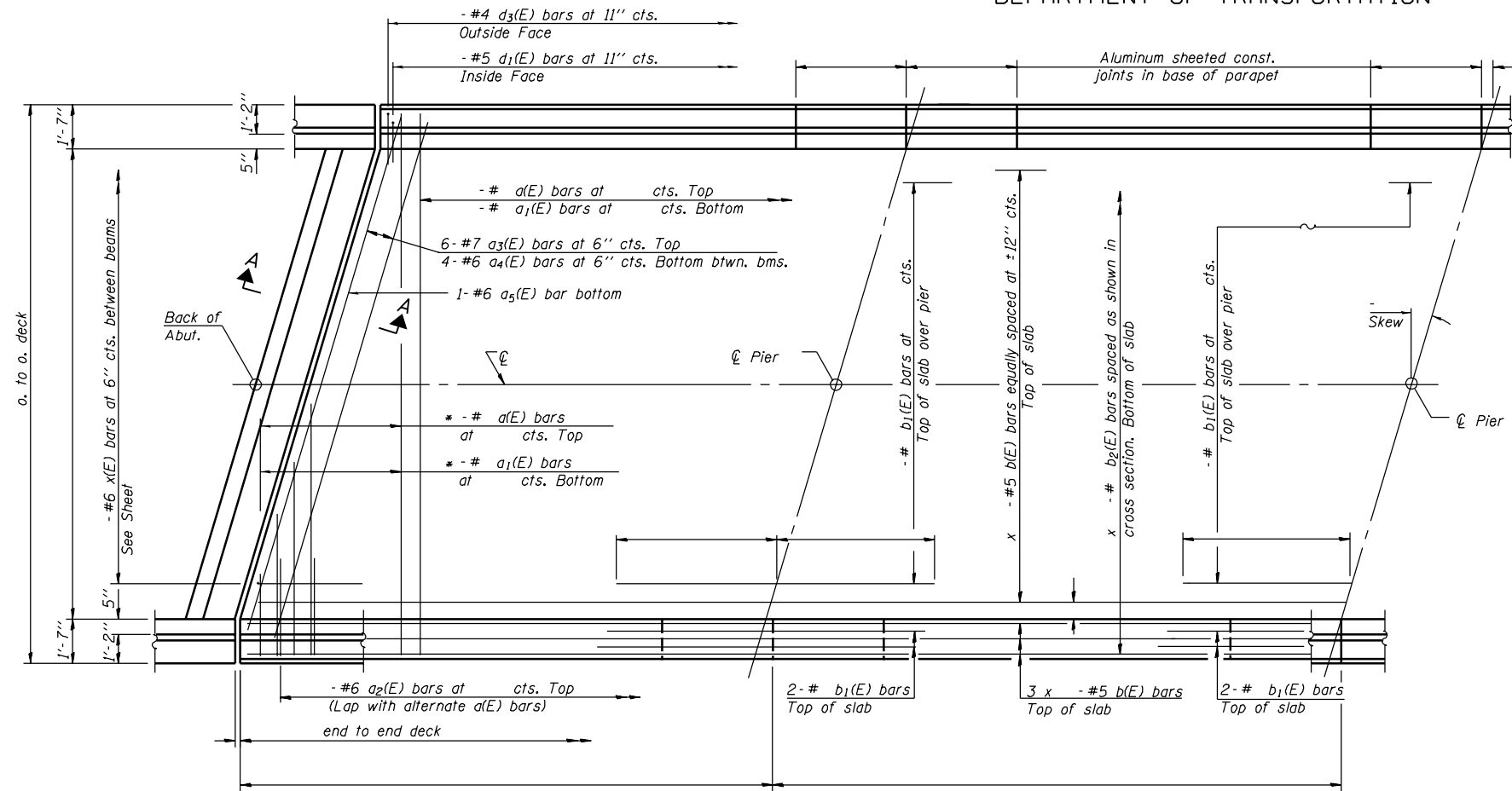
PBT-1-L(>15°) 10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

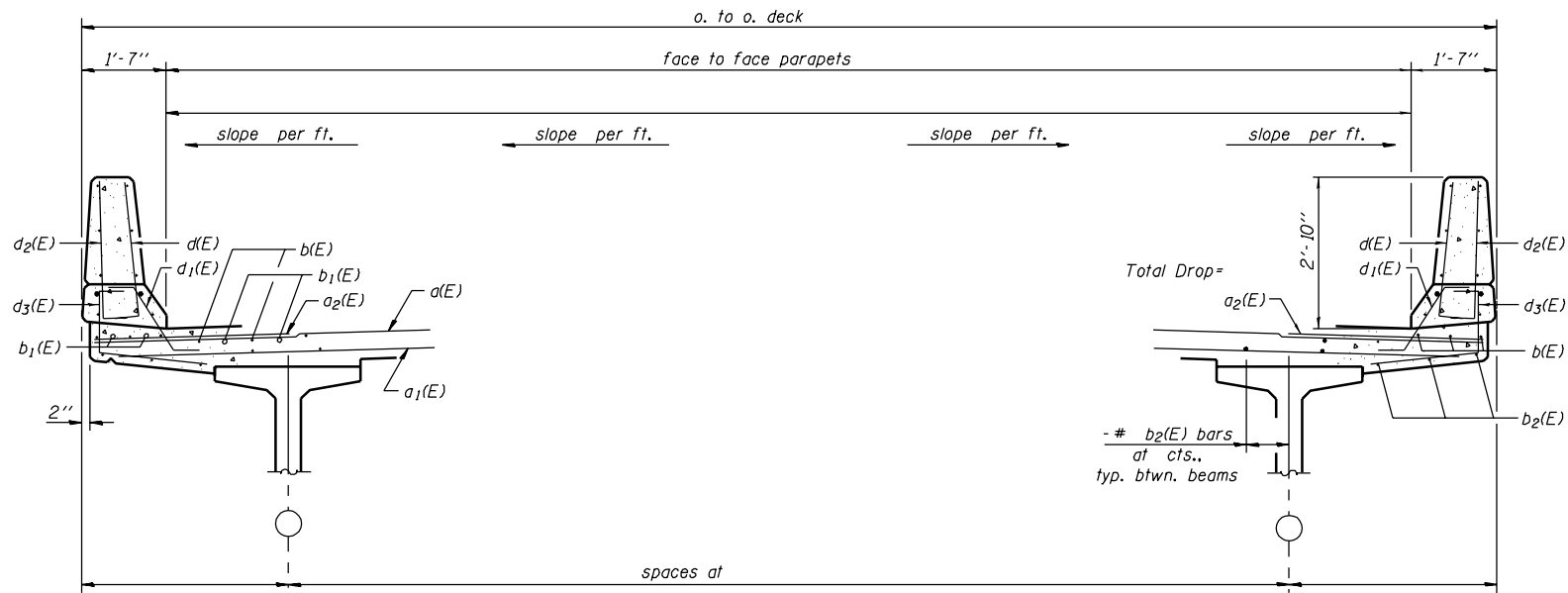
SHEET NO. -
- SHEETS

Contract #



*Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

PARTIAL PLAN



CROSS SECTION
(Looking

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Reinforcement bars designated (E) shall be
epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

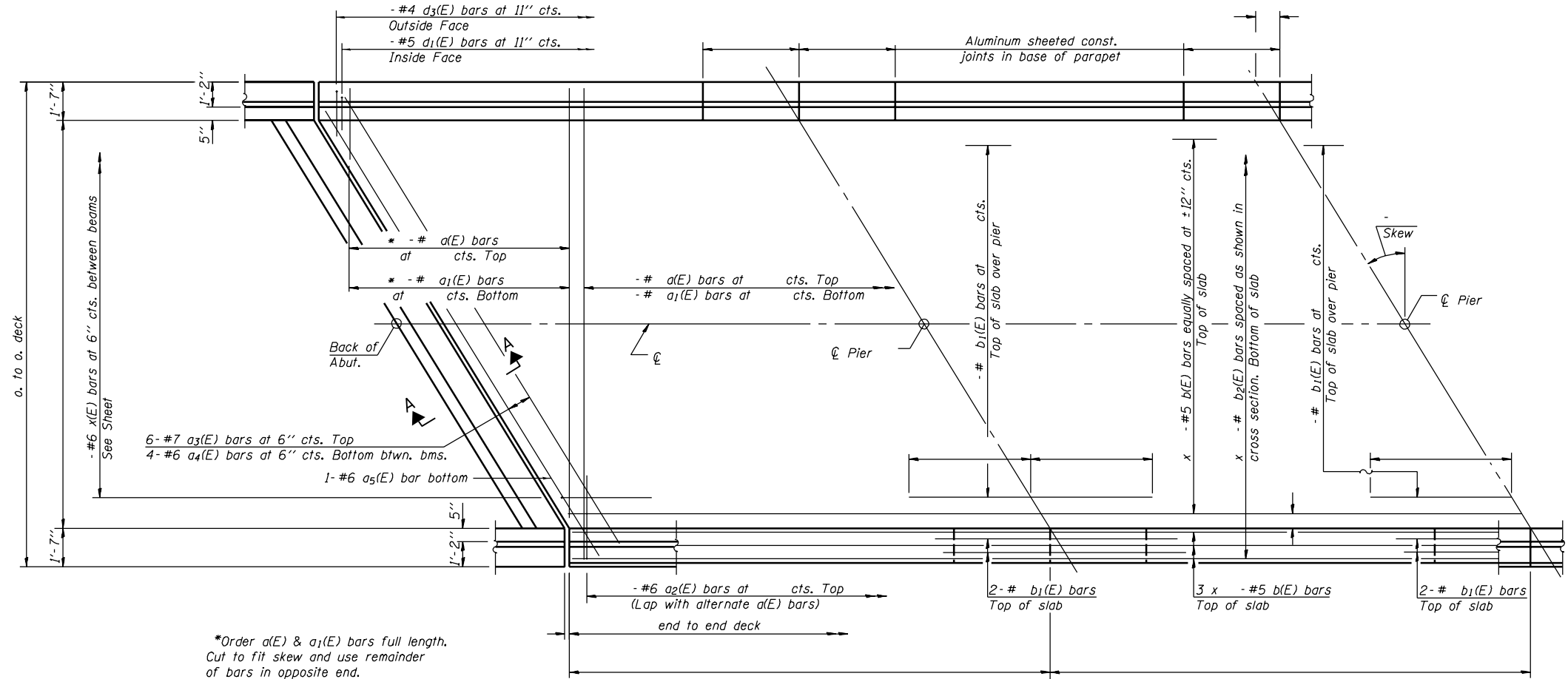
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

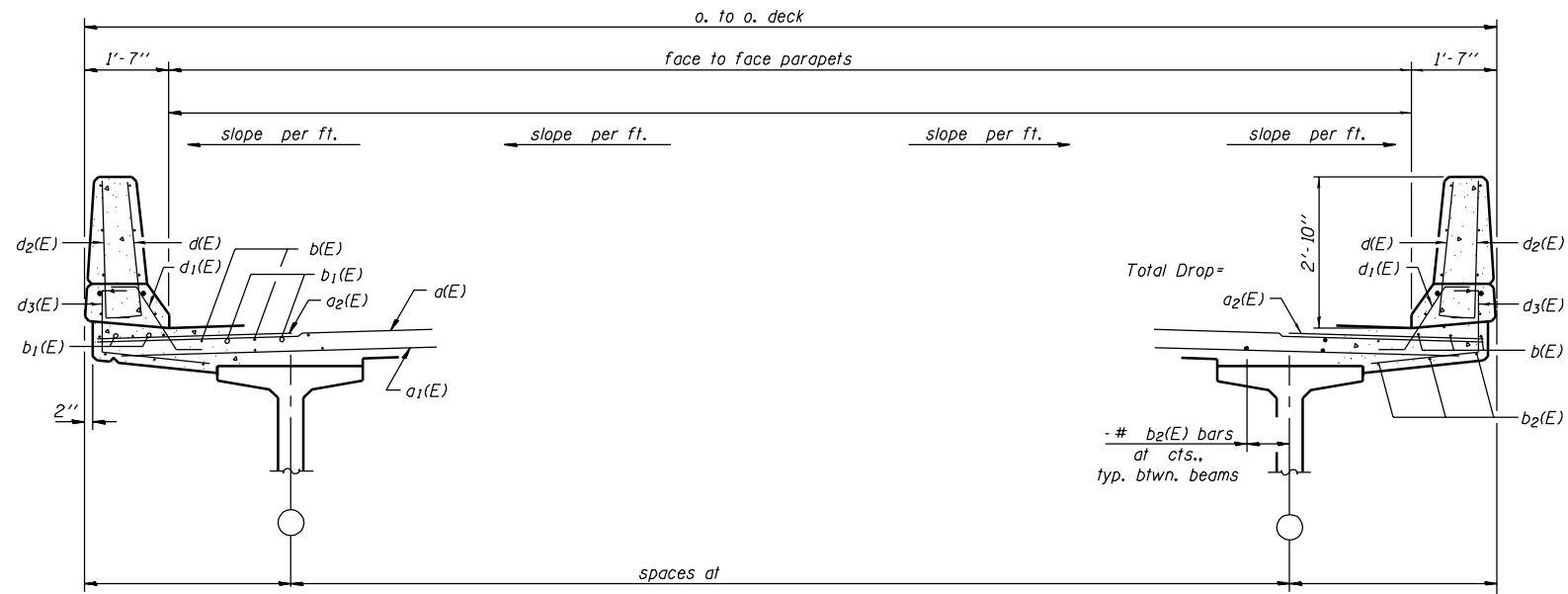
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
- SHEETS

Contract #



PARTIAL PLAN



CROSS SECTION
(Looking)

Notes:
See sheet of for superstructure details and Bill of Material.
For Section A-A and diaphragm details see sheet of .
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -	-
CHECKED -	-
DRAWN -	-
CHECKED -	-

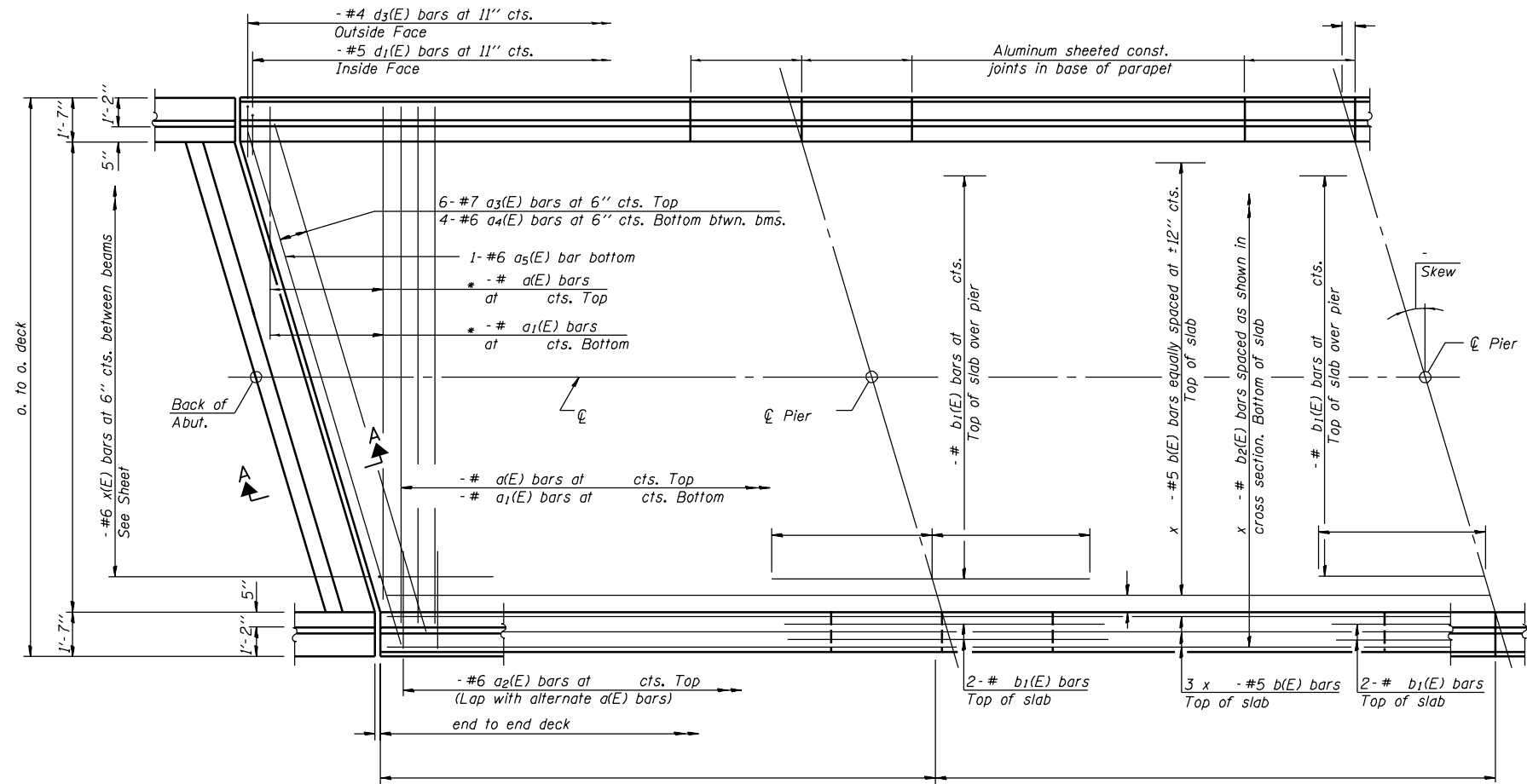
EXAMINED
PASSED
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

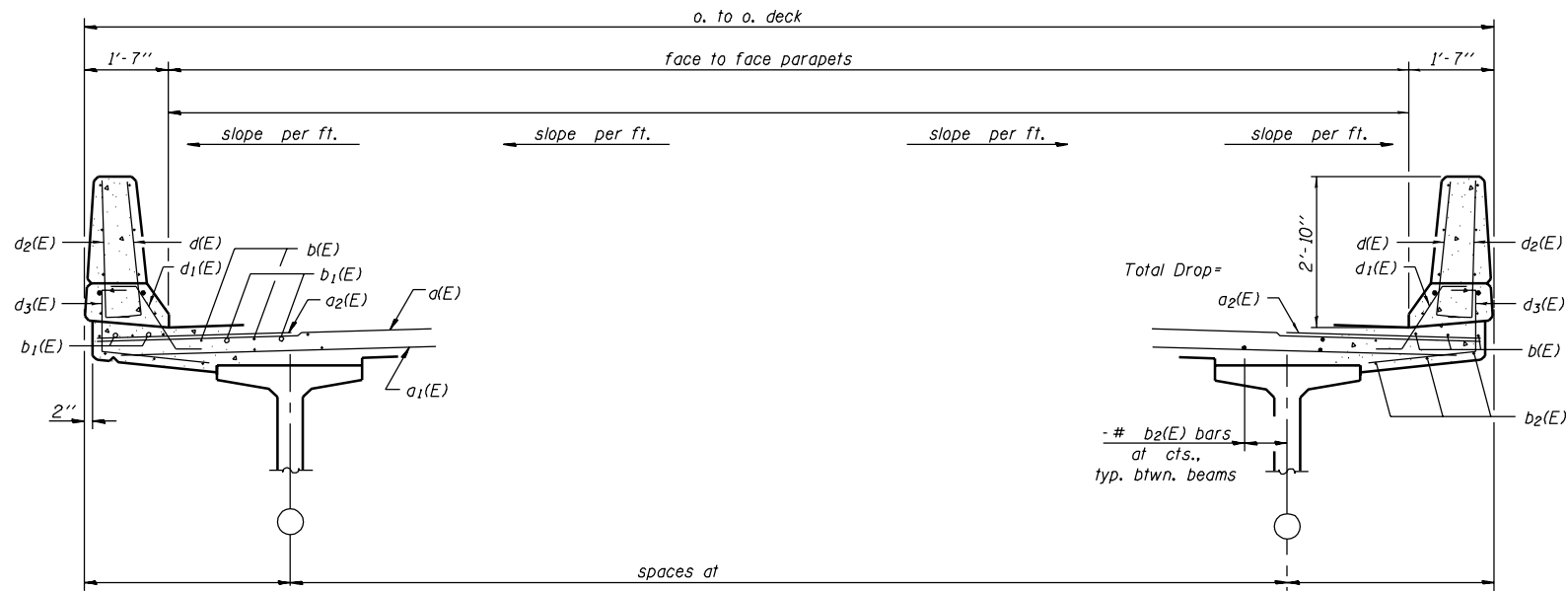
SHEET NO. -
- SHEETS

Contract #



*Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

PARTIAL PLAN



CROSS SECTION
(Looking

Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Reinforcement bars designated (E) shall be
epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT -	

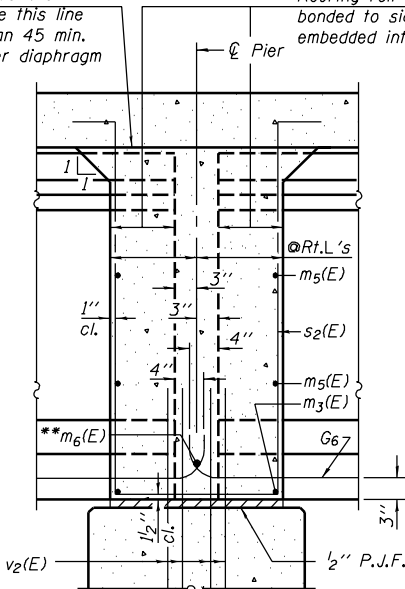
SHEET NO. -

- SHEETS

Contract #

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

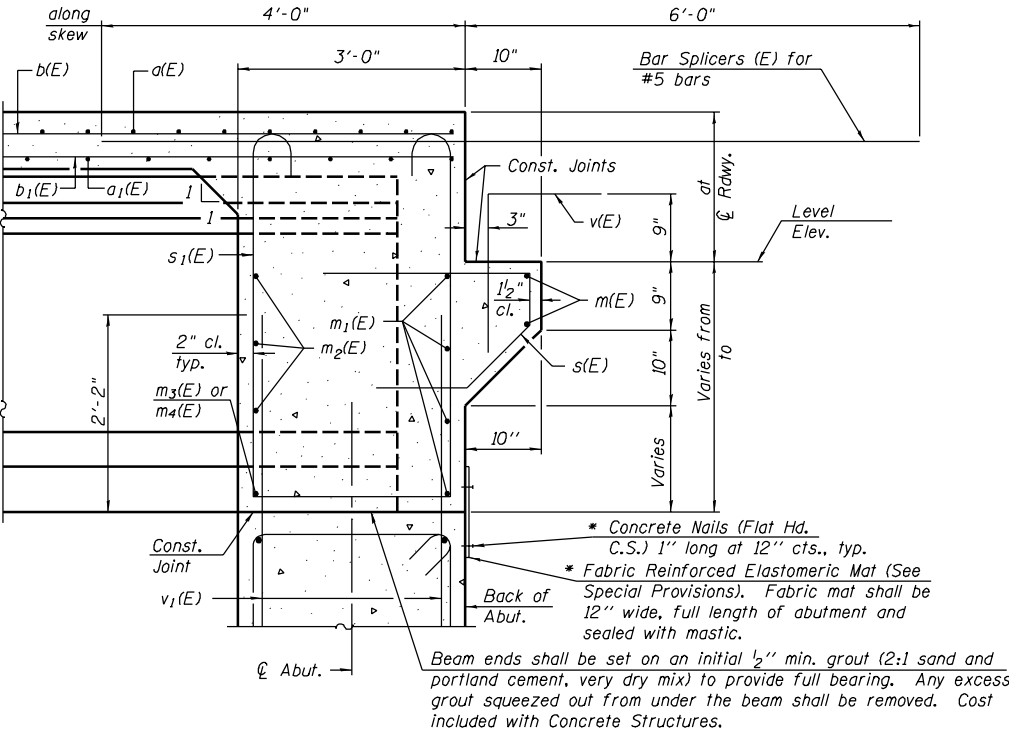
Roofing felt shall be bonded to side of beam embedded into diaphragm.



** Tightly fasten the #8 bars together with No. 9 wire ties.

SECTION B-B

Dimensions along \bar{C} of beam, except as shown.



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Structures.

Note:
See sheet of for location of Sections A-A and B-B.

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PBT-2DDI

10-22-04

PLAN AT PIER

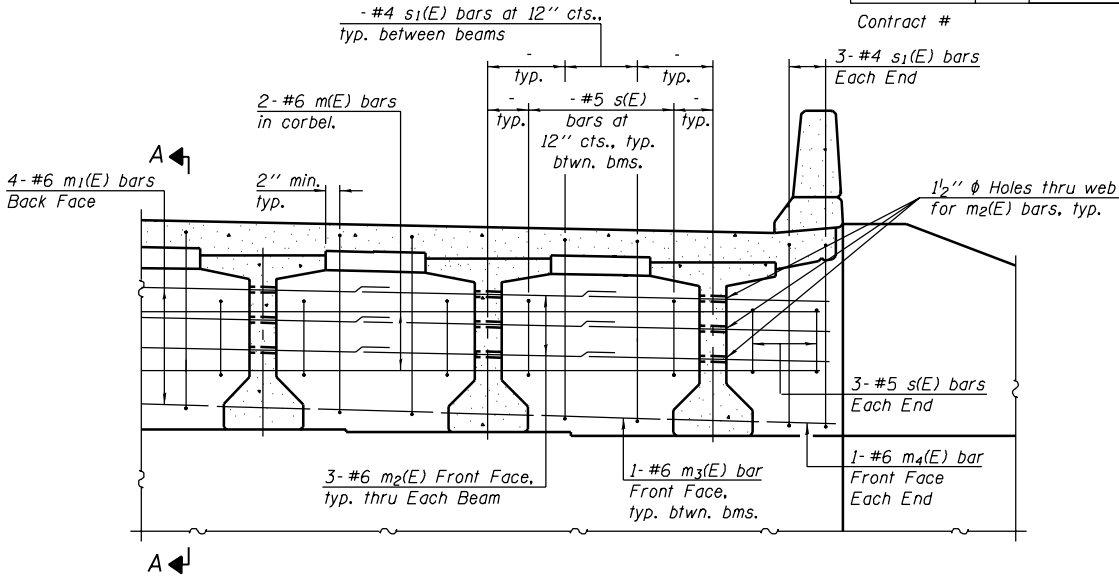
(Showing bearing pad and P.J.F. details)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

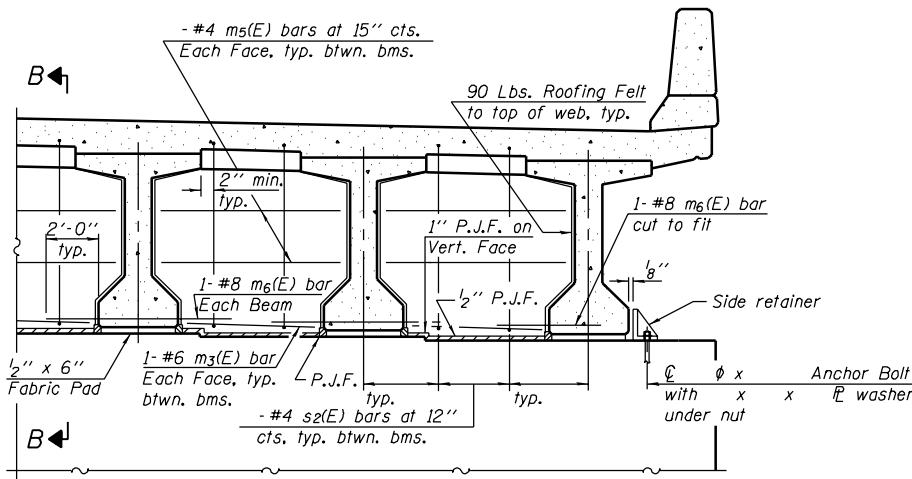
- SHEETS



DIAPHRAGM ELEVATION AT ABUTMENT

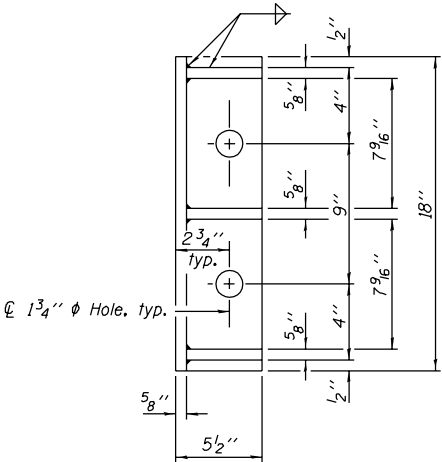
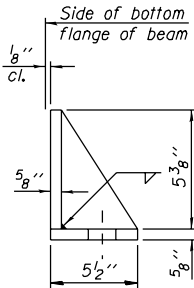
MIN. BAR LAP

#6 bar = 2'-9"



DIAPHRAGM AT PIER

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
For details of bars s(E), s₁(E) and s₂(E) see sheet of .
The s(E), s₁(E) and s₂(E) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.
See sheet of for Sections A-A and B-B.
Cost of 90 Lb. roofing felt is included with Concrete Superstructure.
The side retainer shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
See sheet of for anchor bolt details.



SIDE RETAINER

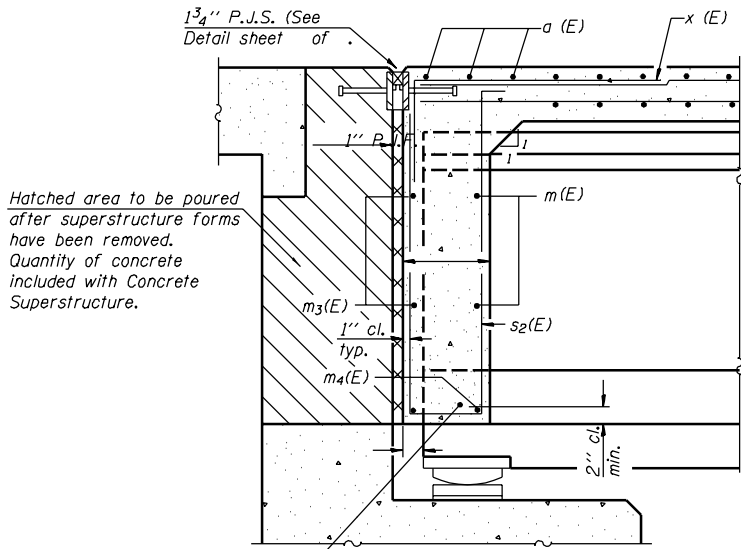
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	ENGINEER OF BRIDGE DESIGN	
CHECKED -	PASSED	
	ENGINEER OF BRIDGES AND STRUCTURES	

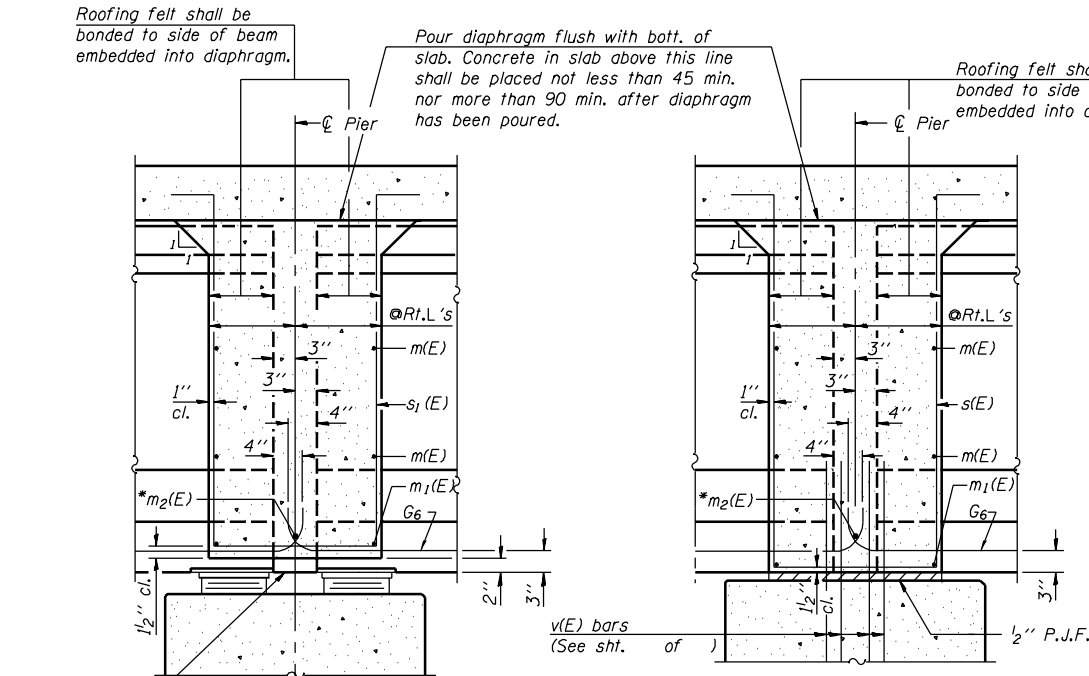
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #



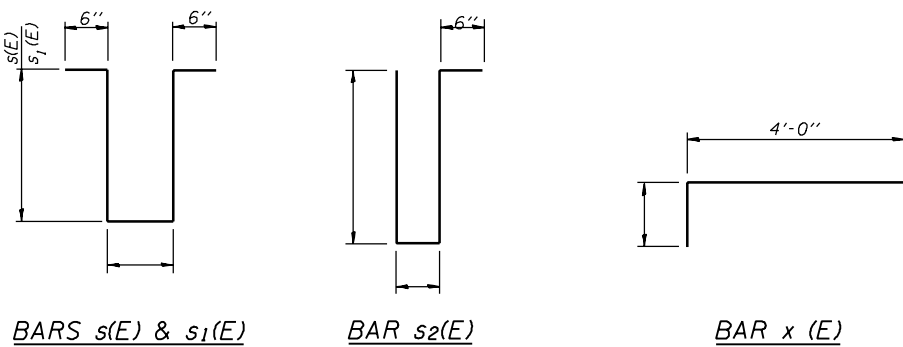
SECTION A-A
AT ABUTMENT
(at Rt. Ls)



SECTION B-B
AT PIER
(Expansion)

SECTION C-C
AT PIER
(Fixed)

*Tightly fasten the #8 bars together with No. 9 wire ties.



BARS s(E) & s1(E)

BAR s2(E)

BAR x(E)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet of .

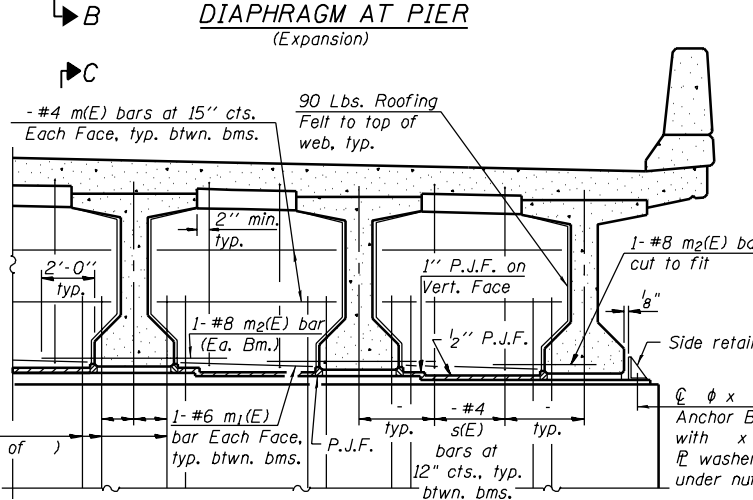
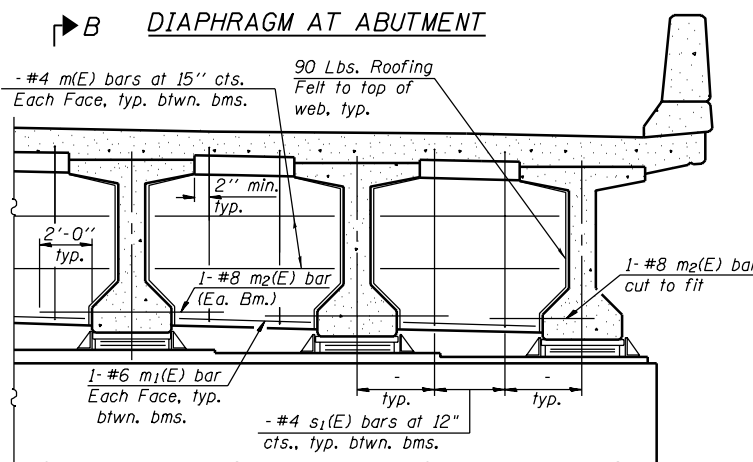
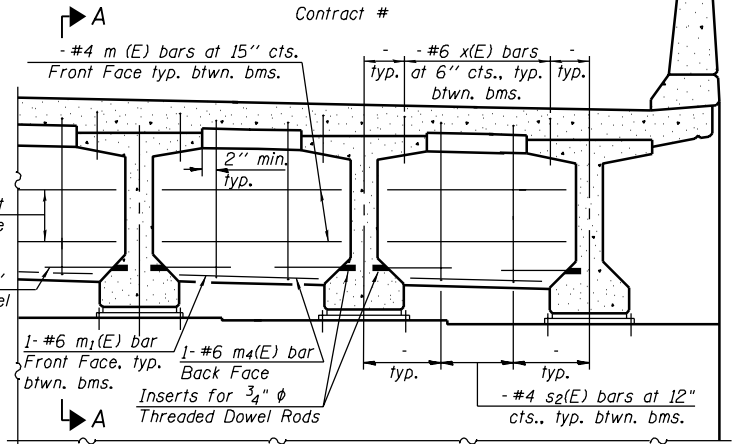
Concrete in diaphragm is included with Concrete Superstructure on sheet of .

The s(E), s1(E), s2(E) and x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

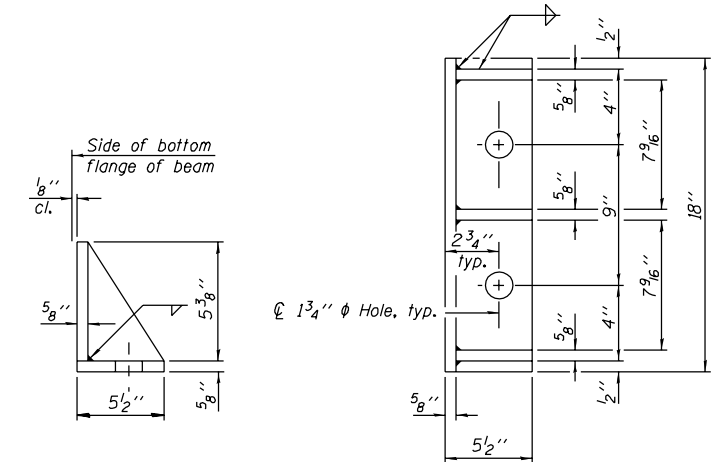
Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

See sheet of for anchor bolt details.

Horizontal dimensions for Sec. B-B and Sec. C-C are along C of beam unless otherwise noted.



DIAPHRAGM AT PIER
(Fixed)



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	ENGINEER OF BRIDGE DESIGN
CHECKED -	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

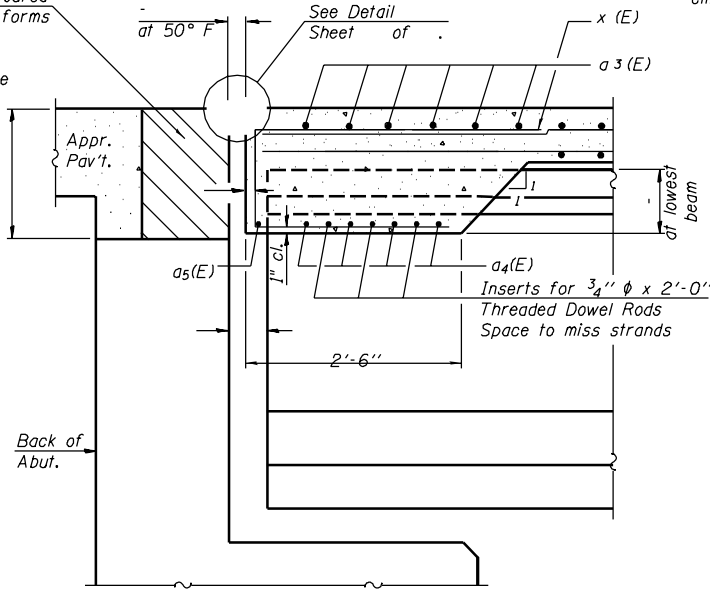
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
SHEETS

Contract #

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.

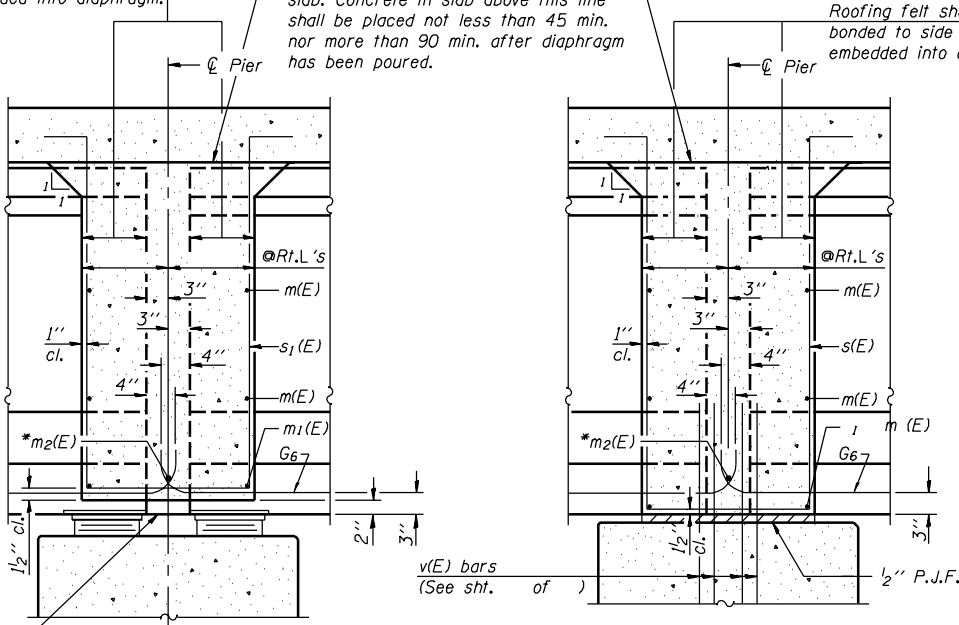


SECTION A-A
AT ABUTMENT
(at Rt. Ls)

Roofing felt shall be bonded to side of beam embedded into diaphragm.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

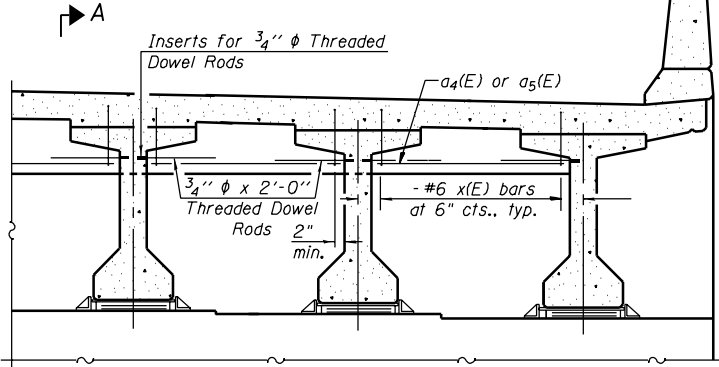
Roofing felt shall be bonded to side of beam embedded into diaphragm.



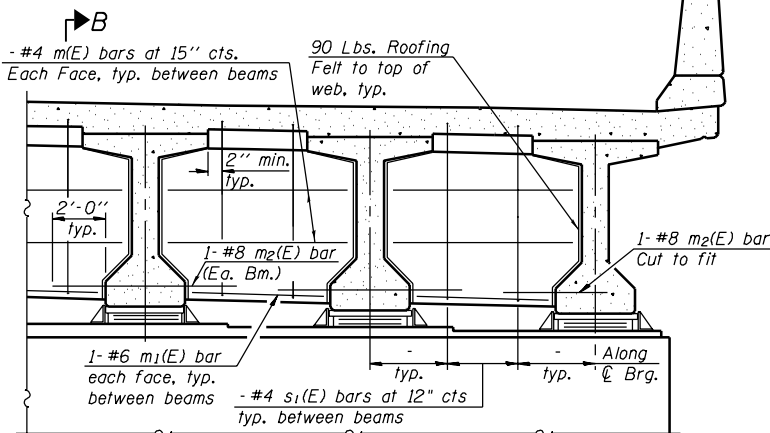
SECTION B-B
AT PIER
(Expansion)

SECTION C-C
AT PIER
(Fixed)

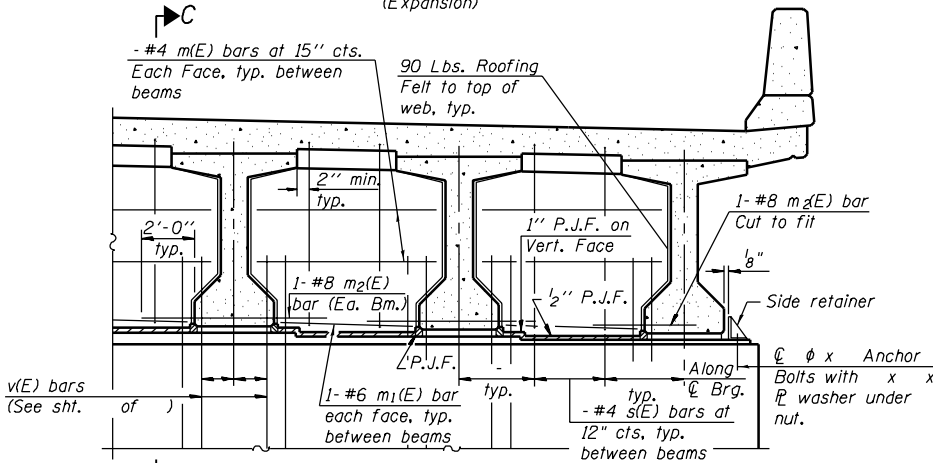
* Tightly fasten the #8 bars together with No. 9 wire ties.



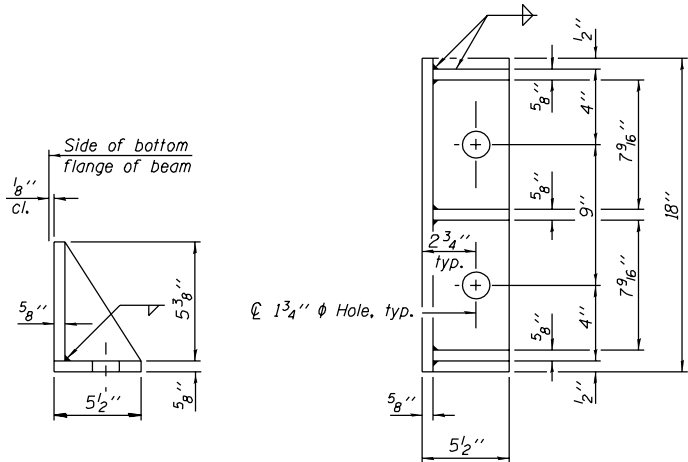
DIAPHRAGM AT ABUTMENT



DIAPHRAGM AT PIER
(Expansion)

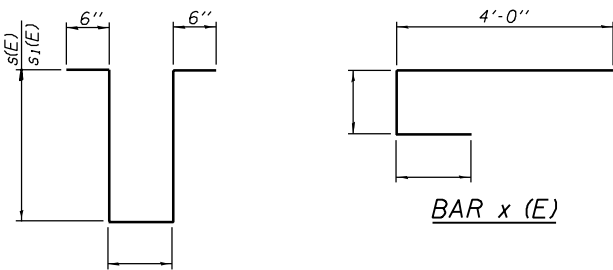


DIAPHRAGM AT PIER
(Fixed)



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BARS $s(E)$ & $s_1(E)$

BAR $x(E)$

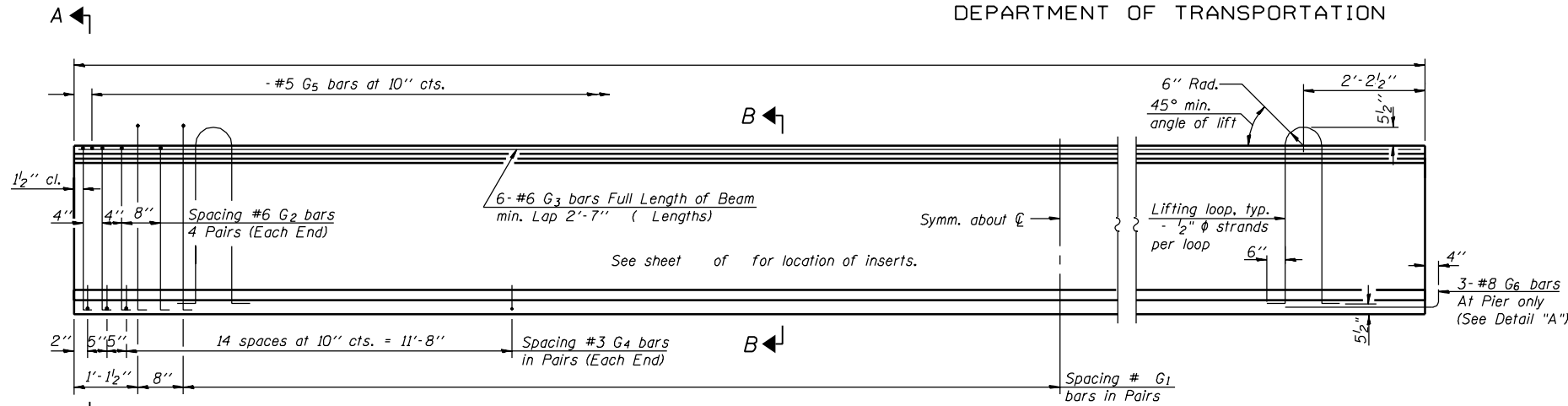
Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet of .
Concrete in diaphragm is included with Concrete Superstructure on sheet of .
The $s(E)$, $s_1(E)$ and $x(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Cost of 90 Lb. roofing felt is included with Concrete Superstructure. See sheet of for anchor bolt details.
Horizontal dimensions for Sec. C-C and Sec. D-D are along ϕ of beam unless otherwise noted.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	ENGINEER OF BRIDGE DESIGN
CHECKED -	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

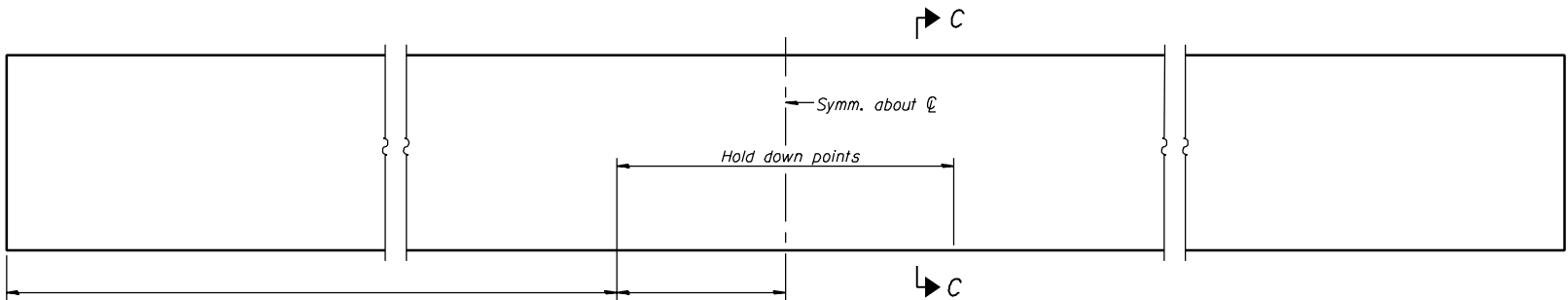
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

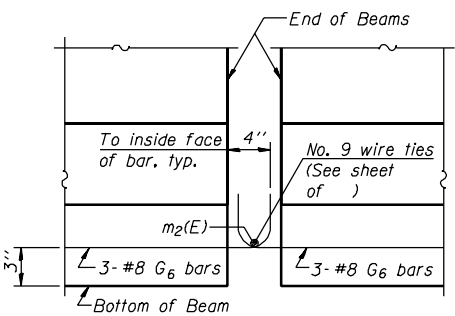
SHEET NO. -
- SHEETS



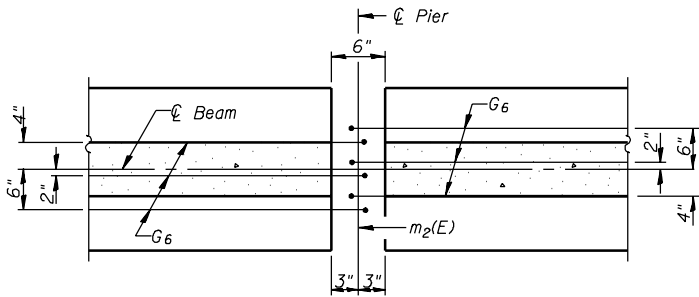
ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)



ELEVATION OF BEAM
(Showing Prestressing Steel)



ELEVATION

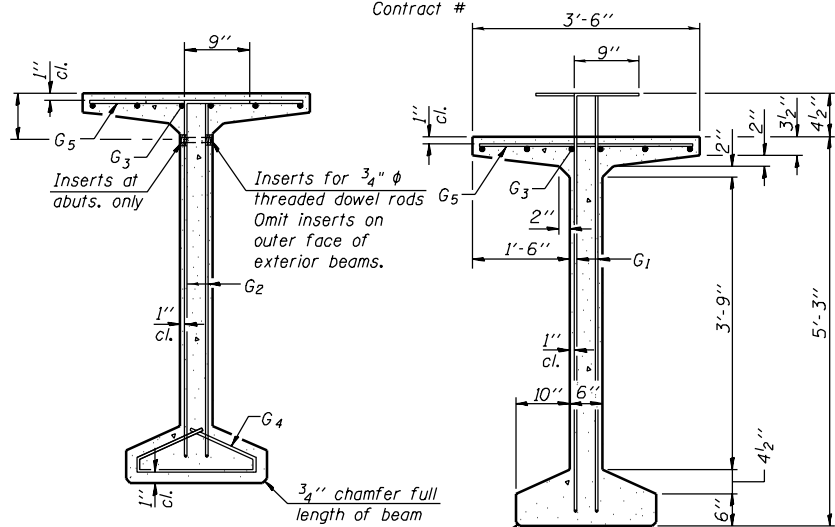


PLAN

DETAIL "A"

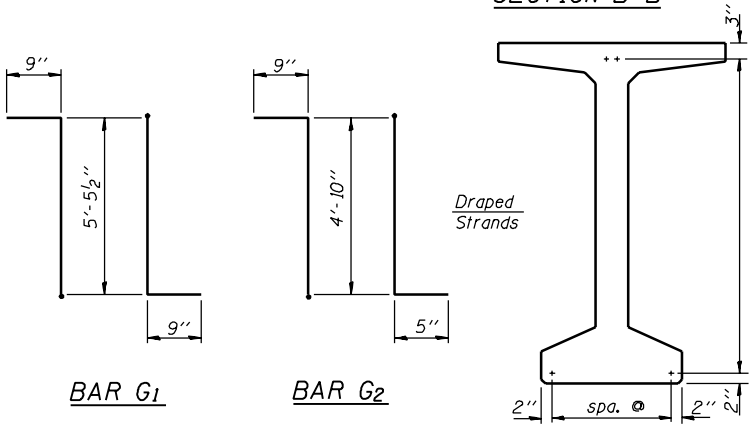
NOTES

Inserts for 3/4" ϕ threaded dowel rods are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60.
Lifting loops shall be 1/2" ϕ 270 ksi strands, as shown.
Required release strength, f'ci, shall be psi.
Reinforcement bars designated (E) shall be epoxy coated.
Tilt G6 bar on exterior face of exterior beams inward to maintain 1/2" concrete cover.



SECTION A-A

SECTION B-B



SECTION C-C

*BAR LIST

Bar	No.	Size	Length	Shape
G1		#	6'-11 1/2"	TL
G2		#6	6'-0"	TL
G3		#6		
G4		#3	3'-6 1/2"	
G5		#5	3'-4"	
G6		#8	3'-6"	

*For one beam only.

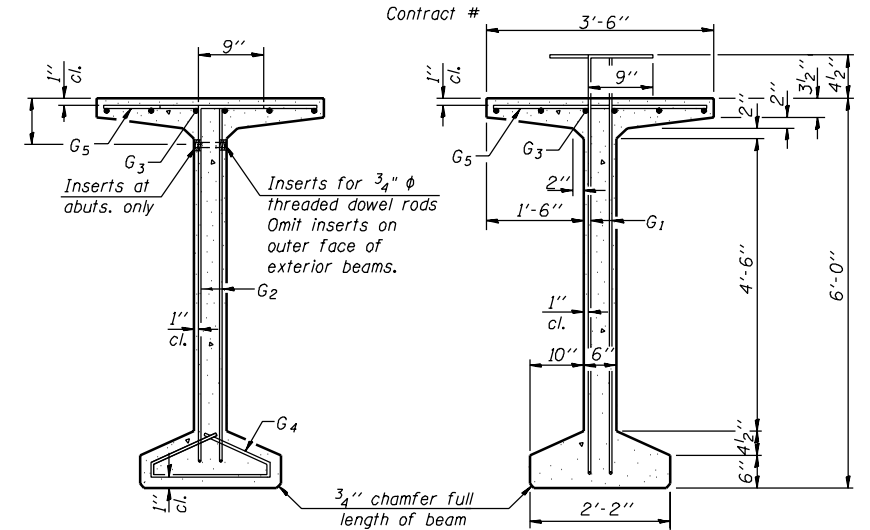
BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63"	Ft.	

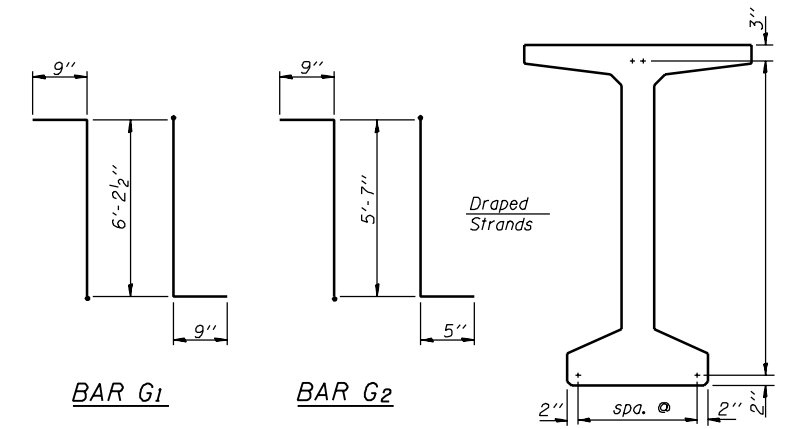
DESIGNED -	200
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

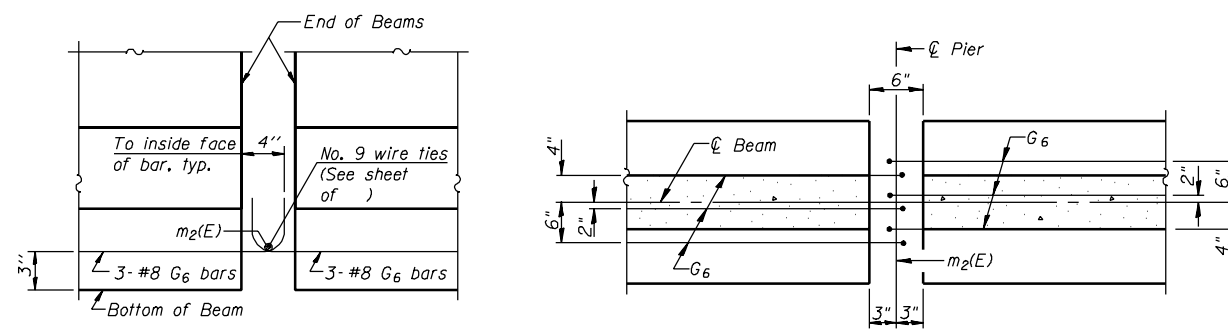
SHEET NO. -
- SHEETS



SECTION B-B

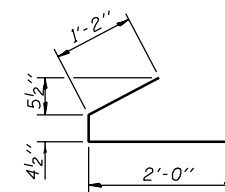


BAR G₂



PLAN

BAR G4



SECTION C-C

BAR G6

Bar	No.	Size	Length	Shape
G_1		#	7'-8 $\frac{1}{2}$ "	7L
G_2		#6	6'-9"	7L
G_3		#6		—
G_4		#3	3'-6 $\frac{1}{2}$ "	C
G_5		#5	3'-4"	—
G_6		#8	3'-6"	J

BILL OF MATERIAL

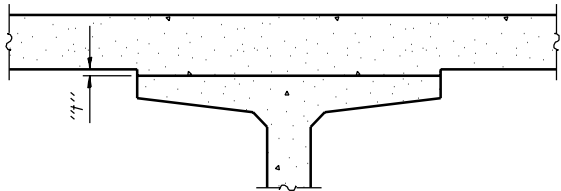
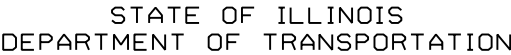
<i>Item</i>	<i>Unit</i>	<i>Total</i>
<i>Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 72"</i>	<i>Ft.</i>	

Inserts for $\frac{3}{4}$ " \emptyset threaded dowel rods are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60.

Lifting loops shall be $\frac{1}{2}" \phi$ -270 ksi strands, as shown.
 Required release strength, f'_{ci} , shall be _____ psi.
 Reinforcement bars designated (E) shall be epoxy coated.
 Tilt G_6 bar on exterior face of exterior beams inward to maintain $1\frac{1}{2}"$ concrete cover.

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7

- SHEETS

Contract #

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" show below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

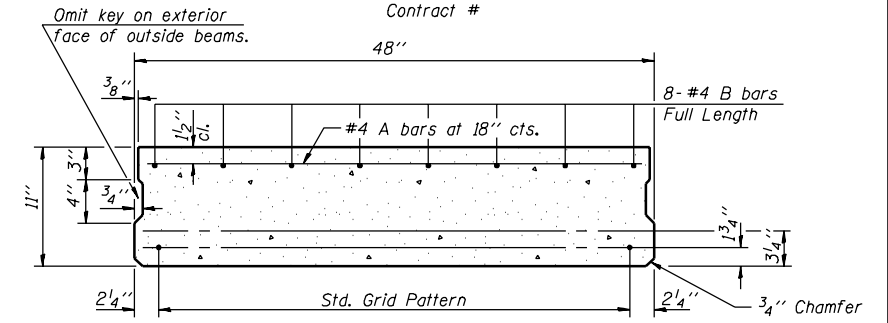
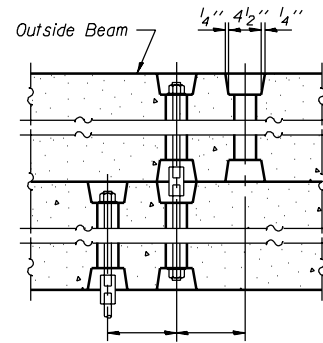
ENGINEER OF BRIDGES AND STRUCTURES

PBT-E

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



TYPICAL SECTION

Note:
Place strands symmetrically
about \mathbb{C} beam.

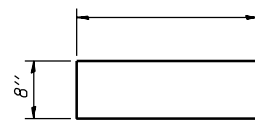
[illegible]

Diagram illustrating the dimensions and angles for a cold-chamber die casting mold. The mold features a central vertical cavity with a semi-circular top. Key dimensions and angles are labeled:

- 45° min. angle of lift:** The angle of the upper mold halves.
- 3" Radius (Cold bent):** The radius of the semi-circular top of the cavity.
- Top of Beam:** The horizontal surface at the top of the mold.
- 12" Total Height:** The overall height of the mold assembly.
- 4" and 8" Vertical Dimensions:** The height of the upper and lower mold halves, respectively.
- 6" Width:** The width of the lower mold halves.

NOTES

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

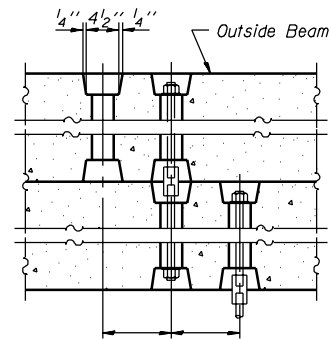
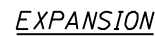
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-1-L

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



6"

3"

4 1/2"

1 1/4"

3"

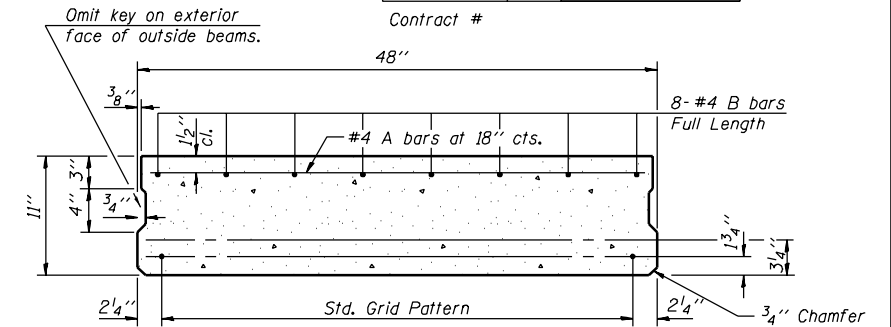
4" x 4" x 1/2" Plate Washer
- Required

Full thread sleeve 3" long
- Required

3" ϕ Opening

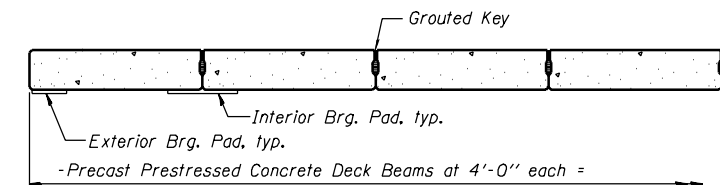
1" ϕ x 3'-11" Rods
(Thread each end 4")
- Required

Nut for 1" ϕ Rod
- Required

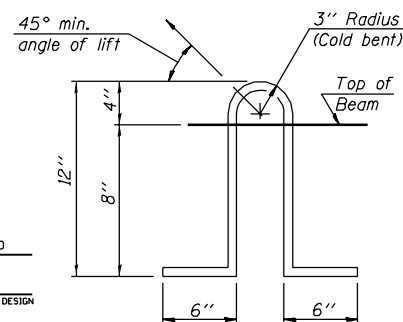


1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1 3/4" up. - Strands 3 1/4" up.

Note:
Place strands symmetrically
about \mathbb{C} beam.



HALF CROSS SECTION



LIFTING LOOP DETAIL

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

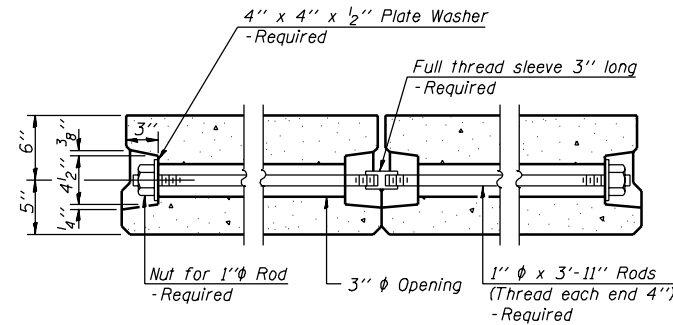
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-1-R

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



Contract #

Omit key on exterior face of outside beams.

48"

3/8"

1 1/2"

CL

#4 A bars at 18" cts.

8- #4 B bars

Full Length

11"

4" 3/4"

3/4"

13/4"

3/4"

2 1/4"

Std. Grid Pattern

2 1/4"

3/4" Chamfer

Note:
Place strands symmetrically
about \underline{C} beam.

8 x 3-W2.5 x W5.5
Wire Fabric, W5.5 vert.
Full depth Each End

4-#4 U bars at 6" cts.
Each Side Each End

8-#4 B bars
Full Length

1'-3" Lifting Loops
2 Each End

2" ϕ holes for
Dowel Rods
Fixed Ends Only

PLAN

Diagram illustrating the cross-section of a bridge deck structure. The main components labeled are:

- Grouted Key
- Interior Brg. Pad, typ.
- Exterior Brg. Pad, typ.

Below the diagram, a dimension line indicates the spacing of the beams:

-Precast Prestressed Concrete Deck Beams at 4'-0" each =

Technical drawing of a cold-chamber die casting mold showing a cross-section of a U-shaped part. The part has a total height of 12 inches, with a top flange 4 inches thick and a main body 8 inches high. The top flange has a 3-inch radius (cold bent) and a 45-degree minimum angle of lift. The base of the part is 6 inches wide on each side of the central cavity. The mold is labeled "DESIGN".

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be *p.s.i.*

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS

FABRIC BEARING PAD
(Exterior)

A diagram of a wedge-shaped object. The top surface is labeled "2'-9\"". The left vertical edge is labeled "9\"". A hole is shown in the center of the wedge, labeled "Key".

FABRIC BEARING PAD
(Exterior)

Technical drawing of a window frame cross-section. The drawing shows the 'Outside Beam' and the internal structure of the frame. Dimensions are indicated: 1/4", 4 1/2", and 1/4".

Omit key on exterior face of outside beams.

52"

$\frac{3}{8}"$

8- #4 B bars
Full length

#4 A bars at 18" cts.

11"

4" 3"

3"

1 3/4"

3 1/4"

2 1/4"

Std. Grid Pattern

3 1/4" Chamfer

2 1/4"

Note:
Place strands symmetrically
about \mathcal{C} beam.

Technical drawing of a rectangular formwork panel with dimensions and reinforcement details:

- Dimensions:**
 - Overall width: 4'-4"
 - Overall height: 1'-0"
 - Top flange width: 2'-4"
 - Top flange height: 6"
 - Bottom flange height: 6"
 - Panel height: 8'-4" (labeled as 8'-4" B bars Full Length)
- Reinforcement Details:**
 - Top Flange:** 4-#4 U bars at 6" cts. Each Side, Each End.
 - Bottom Flange:** 1-#4 A bar Each End.
 - Panel:** - #4 A bars at 18" cts.
 - Side Flange:** 8-#4 B bars Full Length.
- Other Details:**
 - 1'-3" Lifting Loops 2 Each End.
 - 2" ϕ holes for Dowel Rods Fixed Ends Only.
 - Wire Fabric, W5.5 vert. Full depth Each End.

Diagram illustrating the cross-section of a bridge deck structure. The main components are:

- Grouted Key**: The central vertical connection between the deck and the substructure.
- Exterior Brg. Pad, typ.**: The bearing pad located on the exterior side of the deck.
- Interior Brg. Pad, typ.**: The bearing pad located on the interior side of the deck.
- Precast Prestressed Concrete Deck Bms. at 4'-4" each**: The individual precast beams supporting the deck.

[illegible]

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

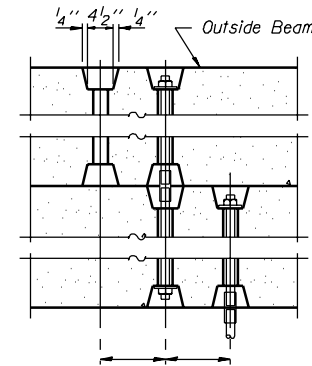
SHEET NO. -

- SHEETS

The image contains two technical drawings of fabric bearing pads, labeled (Interior) and (Exterior).

(Interior) FABRIC BEARING PAD: This drawing shows a rectangular pad with a central rectangular opening. The pad has a total width of 9 inches and a total height of 4 1/2 inches. The central opening has a width of 2'-0" and a height of 2'-9" (labeled as 2'-9" E Key). The opening is offset from the top and bottom edges by 4 1/2 inches. The opening is further offset from the left and right edges by 3 inches. There are two circular holes, each with a diameter of 3 inches, located within the opening. The holes are positioned 2'-0" apart horizontally and 3 inches from the top and bottom edges of the opening.

(Exterior) FABRIC BEARING PAD: This drawing shows a rectangular pad with a central rectangular opening. The pad has a total width of 9 inches and a total height of 4 1/2 inches. The central opening has a width of 1'-0" and a height of 1'-4 1/2". The opening is offset from the top and bottom edges by 4 1/2 inches. There is a single circular hole with a diameter of 3 inches located within the opening, positioned 3 inches from the top and bottom edges of the opening.



4" x 4" x 1/2" Plate Washer
- Required

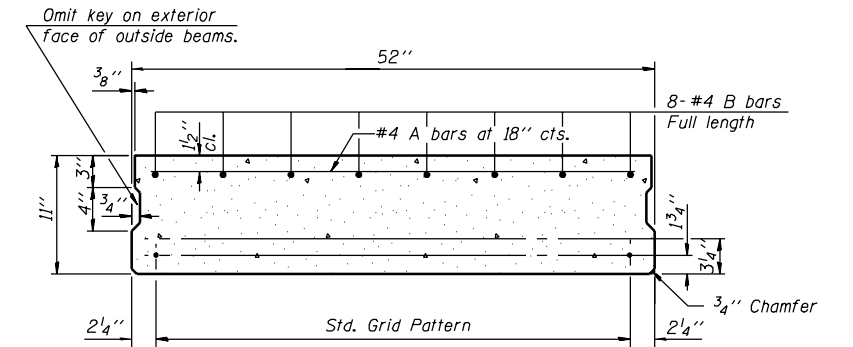
Full thread sleeve 3" long
- Required

6"
3"
4 1/2"
3"
5"
4"
1"

Nut for 1" ϕ Rod
- Required

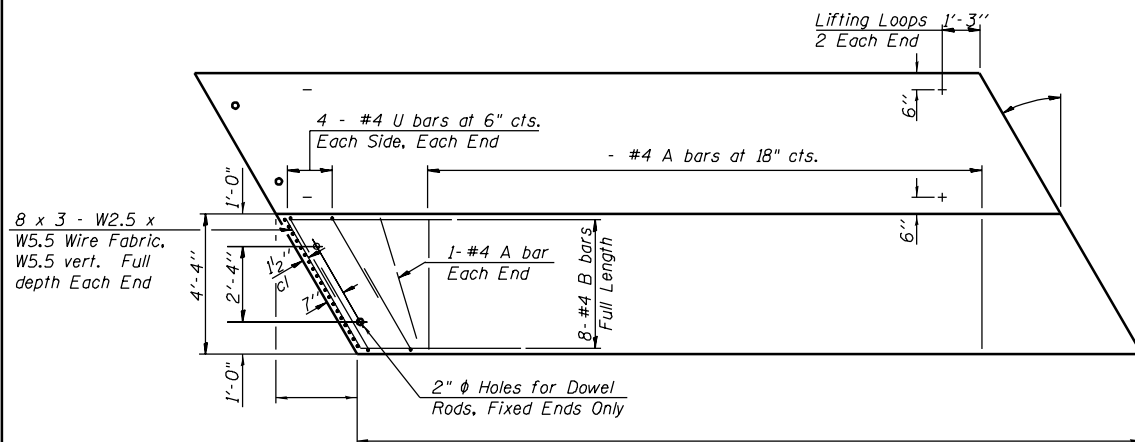
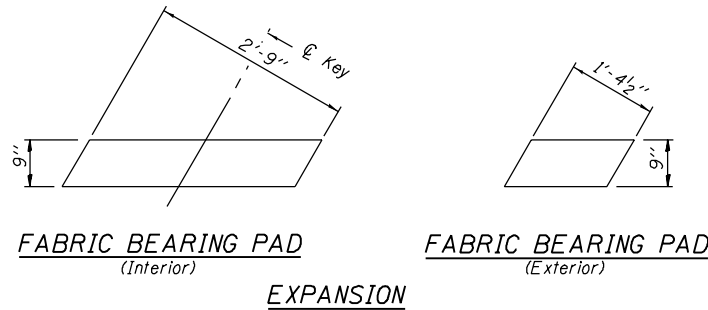
3" ϕ Opening

1" ϕ x 4'-3" Rods
(Thread each end 4")
- Required

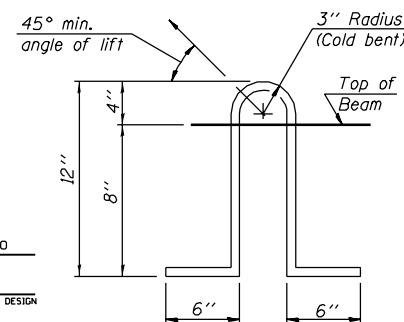


TYPICAL SECTION

Note:
Place strands symmetrically
about \mathcal{C} of beam.



PLAN



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-2-R

10-22-04

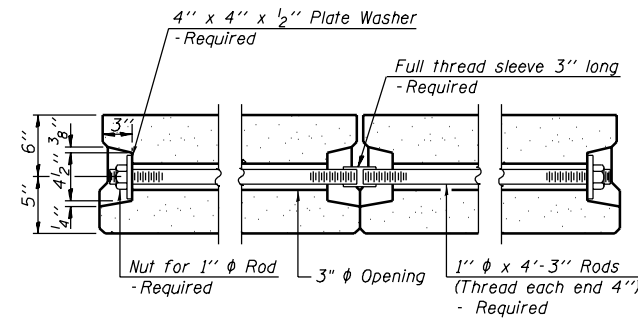
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS

The image contains four technical drawings of fabric bearing pads, each with specific dimensions and labels:

- FABRIC BEARING PAD (Interior):** A rectangular pad with a total width of 2'-9" and a height of 9". It features three 3" diameter holes spaced 2'-0" apart, with 4 1/2" margins on the left and right. A 4 1/2" wide section is attached to the left side. A key is indicated at the top.
- FABRIC BEARING PAD (Exterior):** A rectangular pad with a total width of 1'-4 1/2" and a height of 9". It features a single 3" diameter hole centered horizontally, with 1'-0" margins on the left and right. A 4 1/2" wide section is attached to the left side.
- FIXED:** A rectangular pad with a total width of 2'-9" and a height of 9". It features a central vertical dashed line and a key at the top.
- EXPANSION:** A rectangular pad with a total width of 1'-4 1/2" and a height of 9". It features a central vertical dashed line.



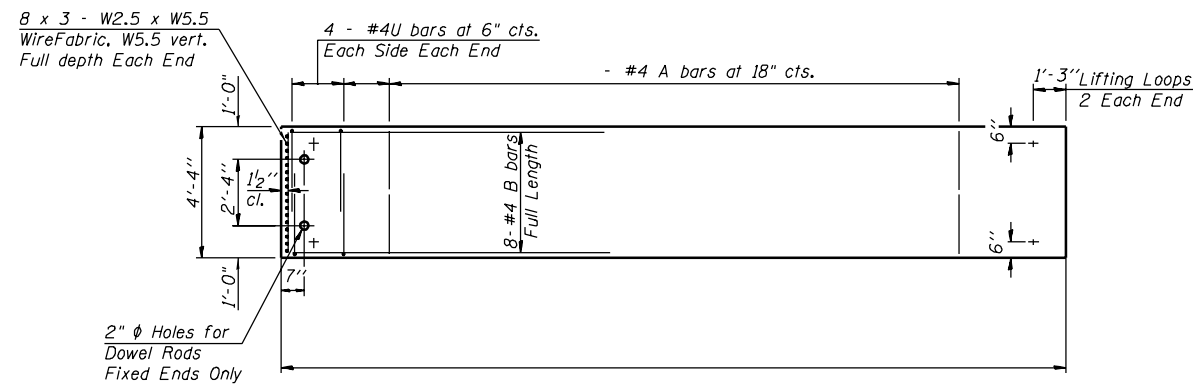
Technical drawing of a rectangular concrete slab with the following specifications:

- Overall Dimensions:**
 - Length: 52"
 - Width: 11"
- Reinforcement:**
 - Top: 8-#4 B bars, Full length
 - Bottom: #4 A bars at 18" cts.
- Dimensions and Details:**
 - Top edge chamfer: 3/8"
 - Left edge chamfer: 3/4"
 - Right edge chamfer: 3/4"
 - Bottom edge chamfer: 3/4"
 - Internal vertical dimension: 4" (split into 3" and 1/4")
 - Internal horizontal dimension: 2 1/4"
 - Internal vertical dimension: 1 3/4"
 - Internal horizontal dimension: 2 1/4"
- Notes:**
 - Omit key on exterior face of outside beams.
 - Std. Grid Pattern

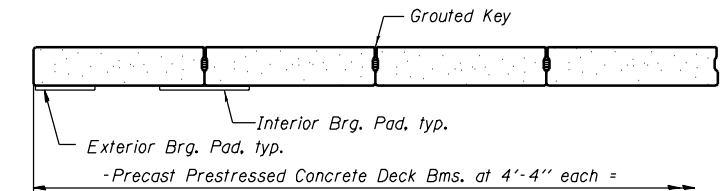
TYPICAL SECTION

$\frac{1}{2}'' \phi$ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands $1\frac{3}{4}''$ up, - Strands $3\frac{1}{4}''$ up,

Note:
Place strands symmetrically
about \mathcal{C} beam.



PLAN



HALF CROSS SECTION

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The $1\frac{1}{2}$ " ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

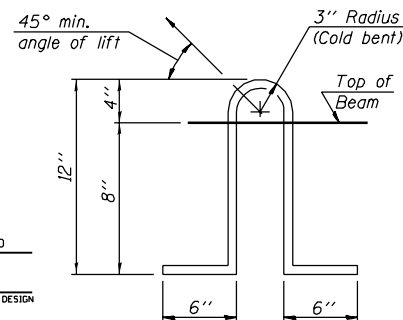
Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.



LIFTING LOOP DETAIL

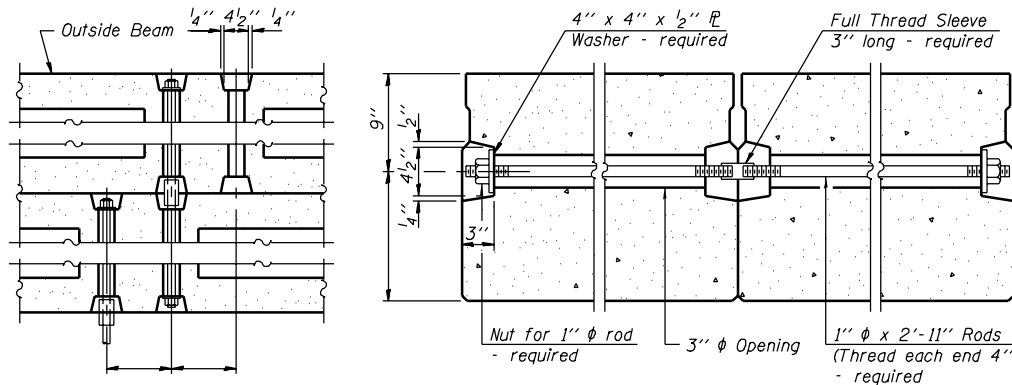
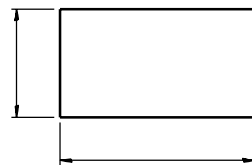
DESIGNED -	- 200
CHECKED -	EXAMINED
DRAWN -	ENGINEER OF BRIDGE DESIGN
CHECKED -	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

PD-2-S

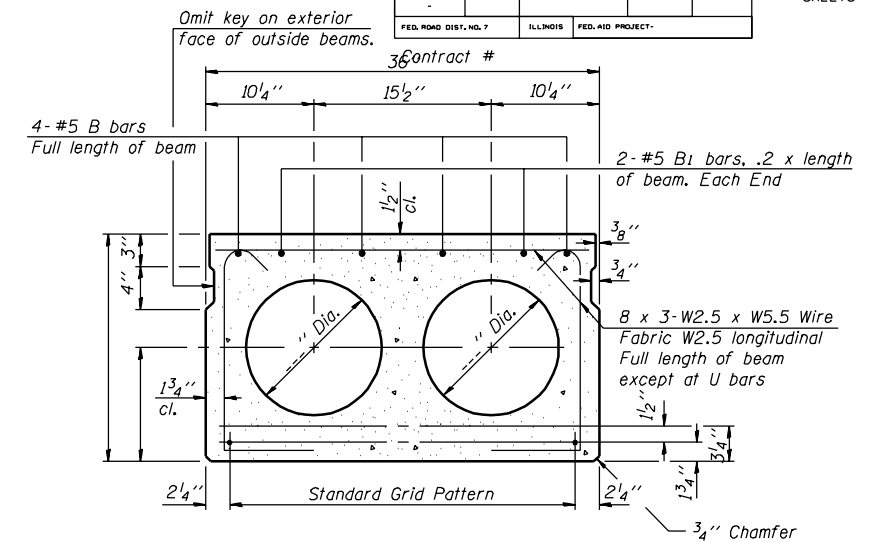
10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



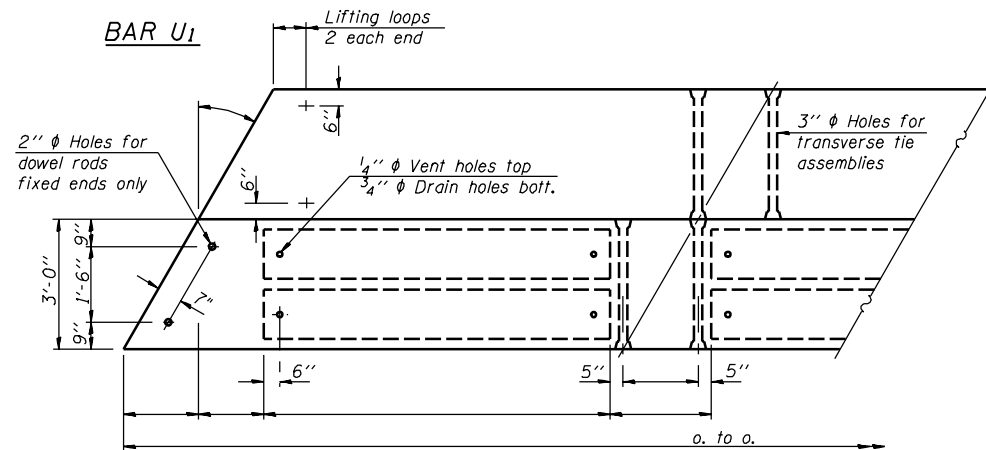
TYPICAL TRANSVERSE TIE ASSEMBLY



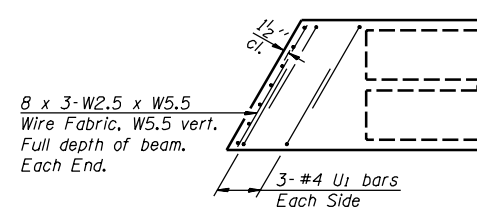
TYPICAL SECTION

$\frac{1}{2}'' \phi$ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands $1\frac{3}{4}''$ up, - Strands $3\frac{1}{4}''$ up

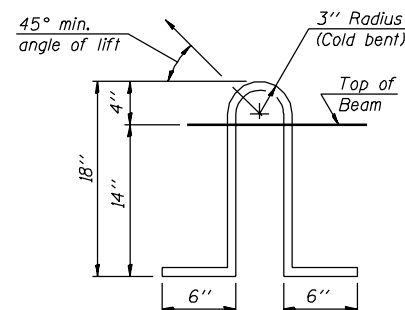
Note:
Place strands symmetrically
about \mathcal{C} of beam.



PLAN



END PLAN



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be *p.s.i.*

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

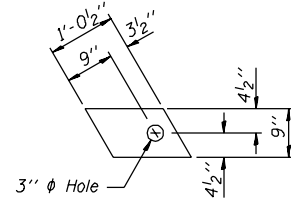
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-3-L

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



FABRIC BEARING PAD
(Exterior)

A diagram of a parallelogram. The top-left slanted side is labeled $1'-0\frac{1}{2}"$. A vertical dimension line on the right side indicates a height of $9"$.

FABRIC BEARING PAD
(Exterior)

A diagram of a rectangle with height h and width w . The height is indicated by a vertical double-headed arrow on the left side, and the width is indicated by a horizontal double-headed arrow on the bottom side.

Technical drawing of a rectangular box with the following dimensions and features:

- Overall Dimensions:**
 - Length: 3'-0"
 - Width: 1'-6" (9")
 - Height: 9"
- Internal Features:**
 - Lifting Loops:** 2 Each End, 6" diameter.
 - 2" Ø Holes:** for dowel rods, fixed ends only.
 - 1/4" Ø Vent holes:** top.
 - 3/4" Ø Drain holes:** bott.
- Other Dimensions:**
 - 6" (width of lifting loop area)
 - 6" (width of vent/drain hole area)
 - 6" (width of lifting loop area)
 - 6" (width of vent/drain hole area)

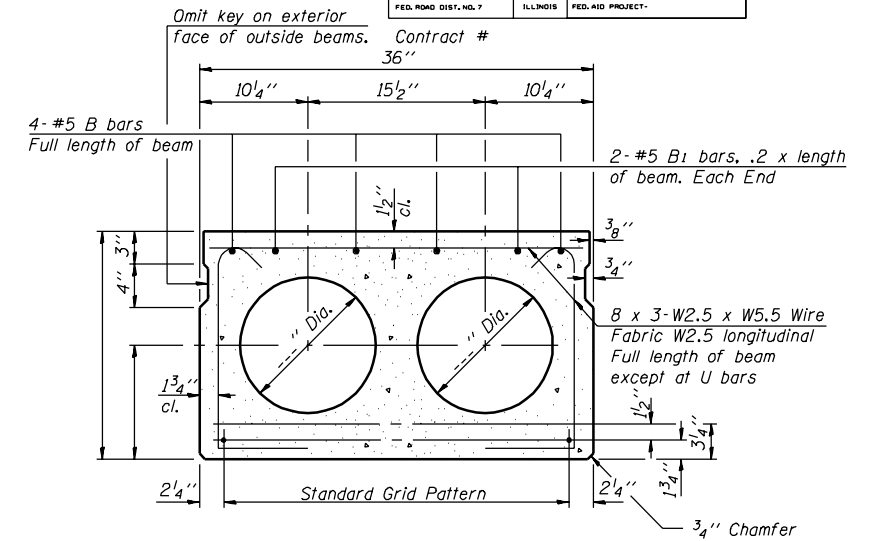
8 x 3-W2.5 x W5.5
Wire Fabric, W5.5 vert.
Full depth of beam.
Each End.

12" c/d

3- #4 U_1 bars
Each Side

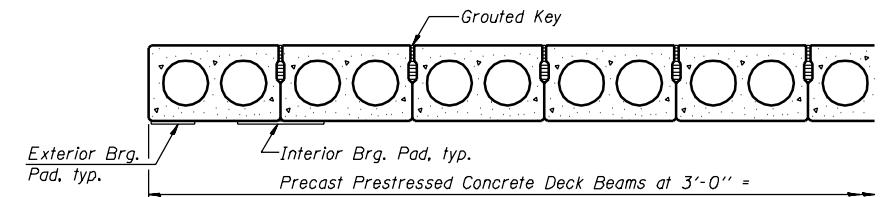
Technical drawing of a bent plate. The drawing shows a plate with a total height of 18 inches. The top flange has a thickness of 4 inches. The main body of the plate has a height of 14 inches. The plate is bent into a U-shape with a 3-inch radius (Cold bent). The angle of lift is 45° min. The top of the beam is indicated. The width of the plate is 6 inches.

DESIGNED -	- 200
CHECKED -	EXAMINED
DRAWN -	ENGINEER OF BRIDGE DESIGN
CHECKED -	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES



1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1 3/4" up, - Strands 3 1/4" up

Note:
Place strands symmetrically
about \mathbb{C} of beam.



HALF CROSS SECTION

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

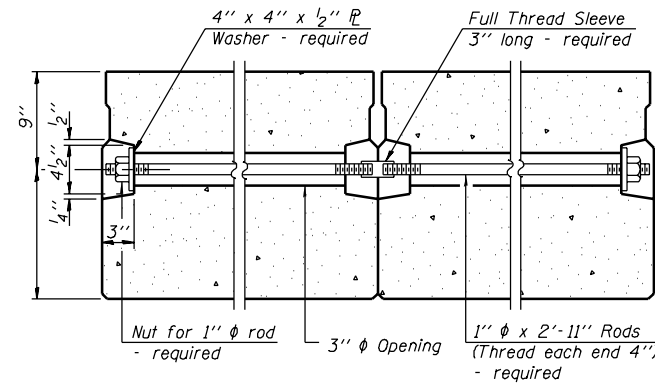
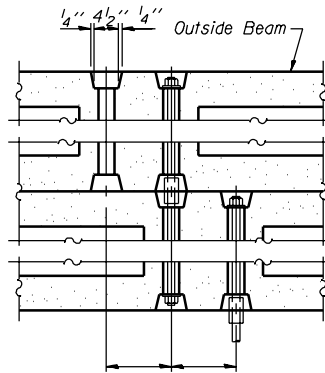
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



Omit key on exterior face of outside beams.

Contract #

36"

10 1/4" 15 1/2" 10 1/4"

4- #5 B bars

Full length of beam

2- #5 B1 bars, .2 x length of beam. Each End

3 8"

3 4"

8 x 3-W2.5 x W5.5 Wire Fabric W2.5 longitudinal Full length of beam except at U bars

1 1/2" Cl.

1 3/4" Cl.

1 1/4" Cl.

2 1/4" 12 1/2" 2 1/4"

Standard Grid Pattern

3/4" Chamfer

$\frac{1}{2}'' \phi$ Strands, Each Strand Stressed to 30,900 Lbs.
-Strands $1\frac{3}{4}''$ up, -Strands $3\frac{1}{4}''$ up

The image contains two technical drawings of fabric bearing pads. The left drawing is labeled 'FIXED' and shows a trapezoidal pad with a vertical height of 9 inches and a top width of 2'-1" with a 1/2" key. The right drawing is labeled 'SLIDING' and shows a similar trapezoidal pad with a vertical height of 9 inches and a top width of 1'-0 1/2". Both drawings are labeled 'FABRIC BEARING PAD' at the bottom, with the left one also labeled '(Interior)' and the right one labeled '(Exterior)'.

FIXED

9"

2'-1" 1/2" Key

FABRIC BEARING PAD
(Interior)

SLIDING

9"

1'-0 1/2"

FABRIC BEARING PAD
(Exterior)

A diagram of a rectangle. The vertical side on the left is labeled with a double-headed arrow and the letter h . The horizontal side at the bottom is labeled with a double-headed arrow and the letter w .

Technical drawing of a rectangular box with lifting loops and various holes. The drawing shows a perspective view of a box with dimensions and labels. Labels include: "Lifting Loops 2 Each End" pointing to the top corners; "3" Ø Holes for transverse tie assemblies" pointing to the top surface; "1/4" Ø Vent holes top" and "3/4" Ø Drain holes bott." pointing to the top and bottom surfaces; "2" Ø Holes for Dowel rods Fixed Ends Only" pointing to the bottom corners; and "0. to 0." at the bottom right. Dimensions include 3'-0" for the length, 9" for the width, and 1'-6" for the height. Other dimensions include 6", 7", 1", 6", 5", and 5".

8 x 3- W2.5 x W5.5
Wire Fabric, W5.5 vert.
Full depth of beam.
Each End.

3-#4 U1 bars
Each Side

1/2" cl.

Technical drawing of a cold-chamber die casting mold. The mold is shown in cross-section, revealing two vertical channels. The top of the mold is a horizontal plate with a 45° min. angle of lift. The top of the beam is indicated. The mold has a 3" radius (cold bent) at the top of the channels. The dimensions are: 18" total height, 14" height of the main body, 4" height of the top section, 6" width of the channels, and 6" width of the base.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be *p.s.i.*

Grouted Key

Exterior Brg. Pad, typ.

Interior Brg. Pad, typ.

Precast Prestressed Concrete Deck Beams at 3'-0" =

BILL OF MATERIAL

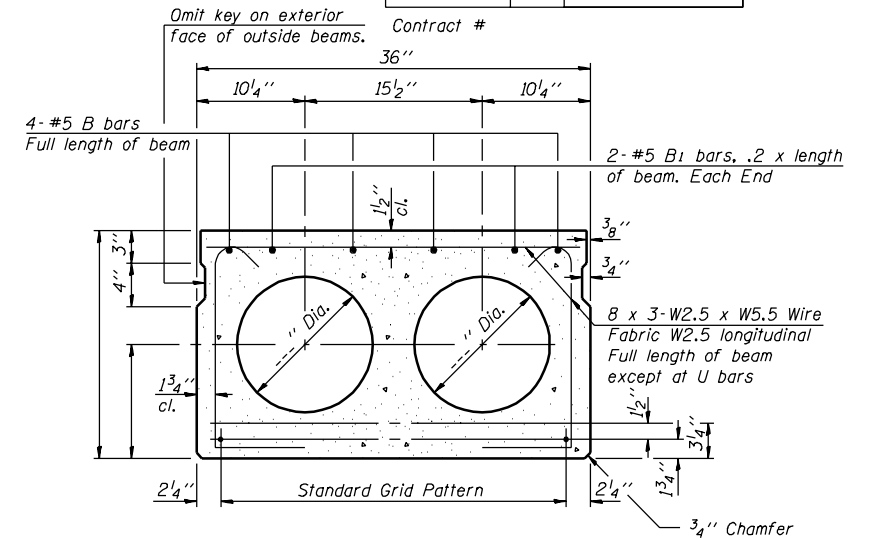
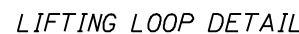
<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

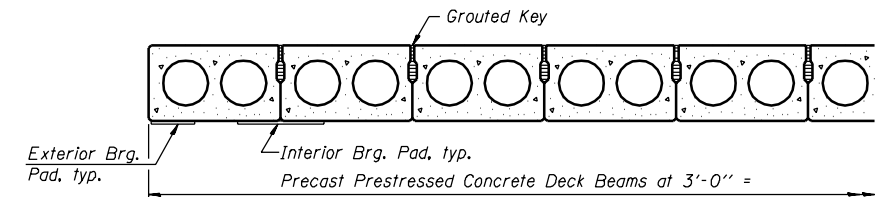
SHEET NO. -
- SHEETS



TYPICAL SECTION

1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1 3/4" up, - Strands 3 1/4" up

Note:
Place strands symmetrically
about \mathcal{C} of beam.



HALF CROSS SECTION

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'cl, shall be p.s.i.

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

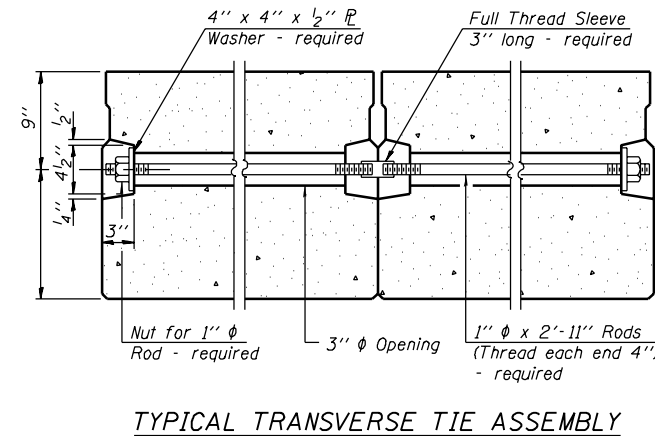
PD-3-RA

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

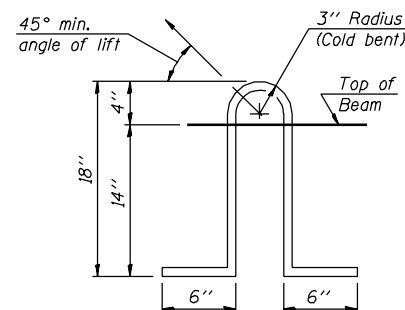
SHEET NO. -

- SHEETS



Technical drawing of a rectangular box with dimensions and labels:

- Lifting loops**: 2 each end
- 6"**: Vertical dimension for the top lifting loop.
- 6"**: Vertical dimension for the bottom lifting loop.
- 3'-0"**: Total vertical dimension of the box.
- 9"**: Vertical dimension for the top section.
- 1'-6"**: Vertical dimension for the middle section.
- 9"**: Vertical dimension for the bottom section.
- 7"**: Vertical dimension for the bottom section.
- 1'-6"**: Vertical dimension for the middle section.
- 9"**: Vertical dimension for the top section.
- 2" ϕ Holes for Dowel Rods Fixed Ends Only**: Label for the holes at the fixed ends.
- 1" ϕ Vent Holes Top**: Label for the top vent holes.
- 3/4" ϕ Drain Holes Bott.**: Label for the bottom drain holes.
- 3" ϕ Holes for transverse tie assemblies**: Label for the transverse tie assemblies.
- 5"**: Horizontal dimension for the top section.
- 5"**: Horizontal dimension for the bottom section.
- 10"**: Total horizontal dimension of the box.



Grouted Key

Exterior Brg. Pad, typ.

Interior Brg. Pad, typ.

Precast Prestressed Concrete Deck Beams at 3'-0" =

NOTES

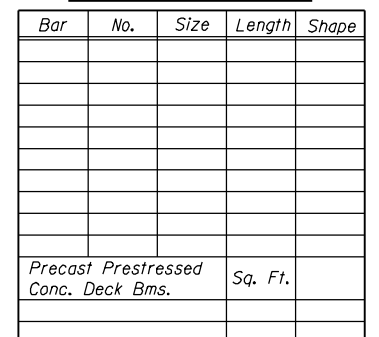
BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

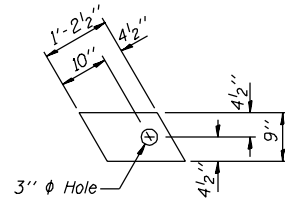
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS



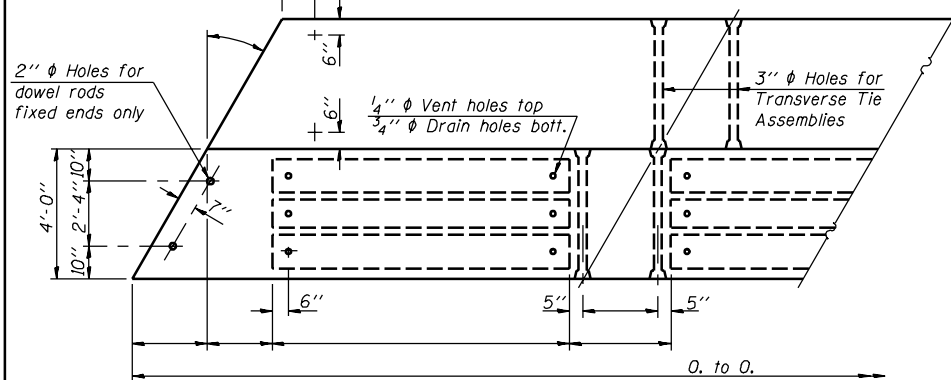
FABRIC BEARING PAD
(Exterior)

A diagram of a parallelogram. The top-left slanted side is labeled $1' - 2\frac{1}{2}''$. A vertical line segment to the right of the parallelogram indicates a height of $9''$.

FABRIC BEARING PAD
(Exterior)

A diagram of a rectangle. To the left of the rectangle, there is a vertical double-headed arrow indicating the height, labeled h . Below the rectangle, there is a horizontal double-headed arrow indicating the width, labeled w .

Lifting Loops
2 Each End



8 x 3- W2.5 x W5.5
 Wire Fabric, W5.5 vert.
 Full depth of beam,
 Each End.

4- #4 U₁ bars
 Each Side

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

- 200

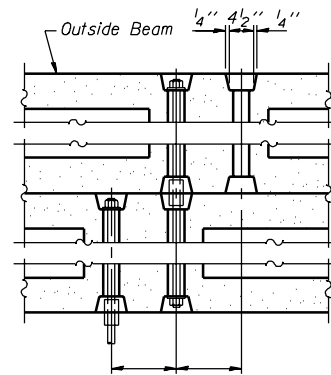
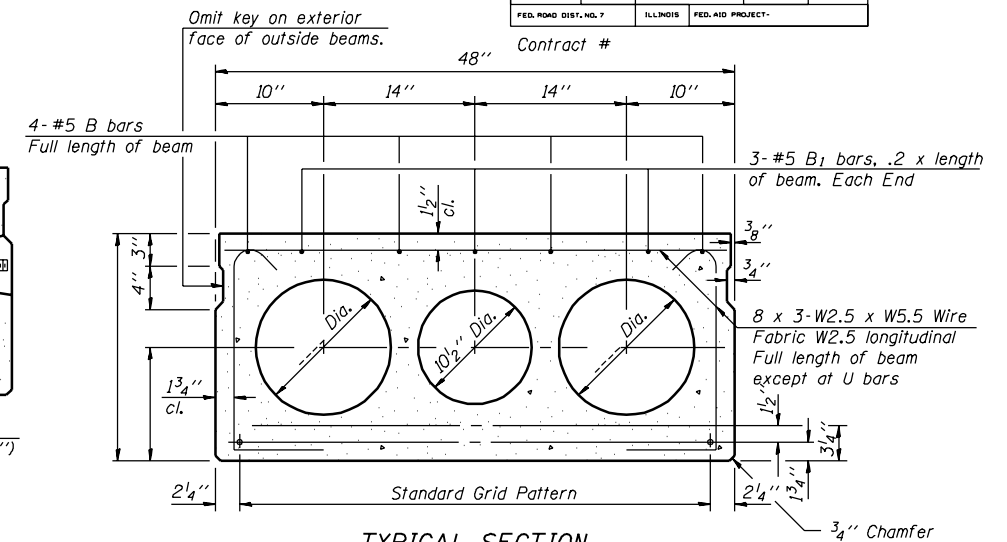
EXAMINED

PASSED

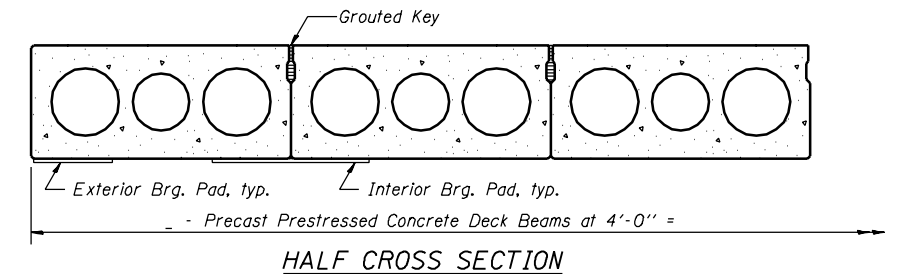
ENGINEER OF BRIDGE DESIGN

ENGINEER OF BRIDGES AND STRUCTURES

10-22-04

[illegible]

Note:
Place strands symmetrically
about \mathcal{C} of beam.



<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

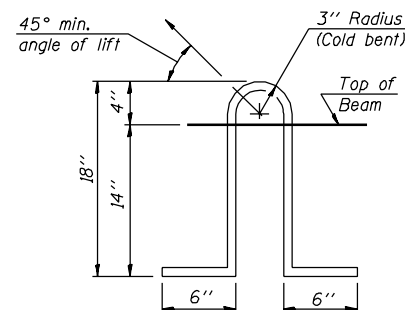
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be p.s.i.



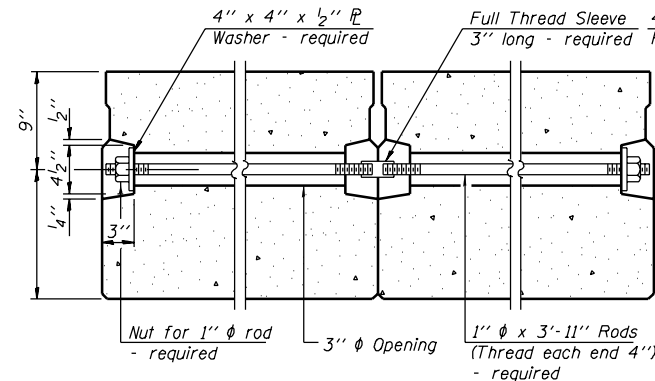
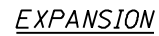
LIFTING LOOP DETAIL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS



The diagram illustrates a cross-section of a bridge deck with the following specifications:

- Overall Dimensions:**
 - Top width: 48"
 - Bottom width: 2' 4"
 - Overall height: 4' 3"
- Reinforcement Details:**
 - Top:** 3- #5 B_1 bars, .2 x length of beam. Each End.
 - Bottom:** 8 x 3-W2.5 x W5.5 Wire Fabric W2.5 longitudinal Full length of beam except at U bars.
 - Internal:** 10 1/2" Dia. circles representing reinforcement or voids.
- Grid and Spacing:**
 - Standard Grid Pattern.
 - Top spacing: 10", 14", 14", 10".
 - Bottom spacing: 13 3/4" c/l.
 - Bottom reinforcement spacing: 1 1/2", 3 1/4", 1 1/2", 3 1/4".
- Other Notes:**
 - Omit key on exterior face of outside beams.
 - Contract #
 - FED. ROAD DIST. NO. 7
 - ILLINOIS
 - FED. AID PROJECT-
 - 3/8" and 3/4" chamfers at corners.
 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
 - Strands 13 3/4" up, - Strands 3 1/4" up

Diagram illustrating a half cross section of a bridge deck. The deck is composed of precast prestressed concrete beams, shown as circles, separated by grouted keys. The deck is supported by exterior and interior bearing pads (Brg. Pad, typ.). The total width of the deck is indicated as 4'-0" =.

Labels in the diagram include:

- Grouted Key
- Exterior Brg. Pad, typ.
- Interior Brg. Pad, typ.
- Precast Prestressed Concrete Deck Beams at 4'-0" =
- HALF CROSS SECTION

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

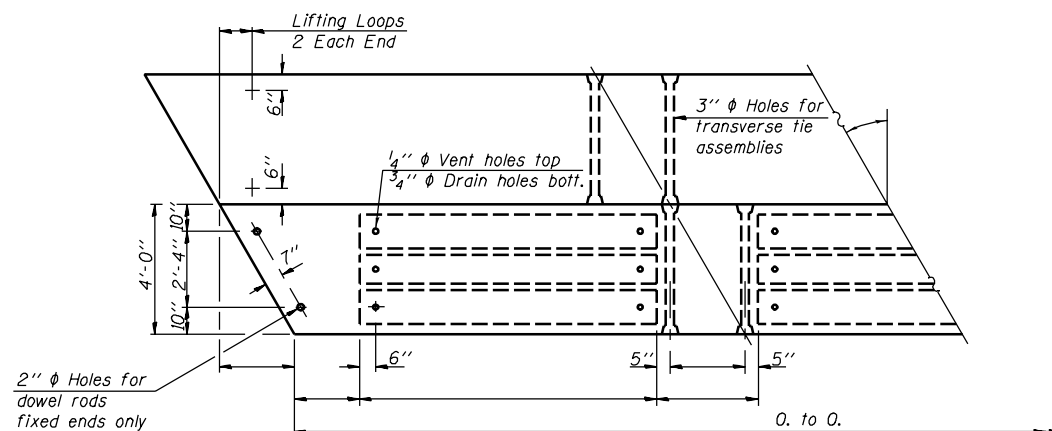
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

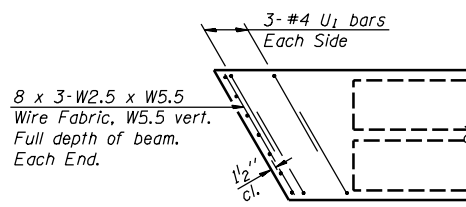
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

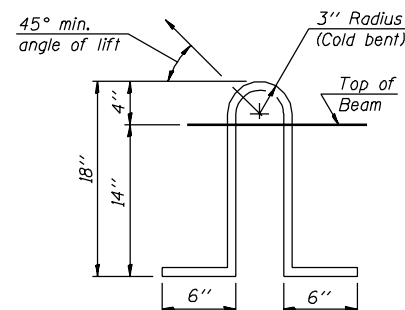
Required Release Strength, f'_{ci} , shall be p.s.i.



PLAN



END PLAN



LIFTING LOOP DETAIL

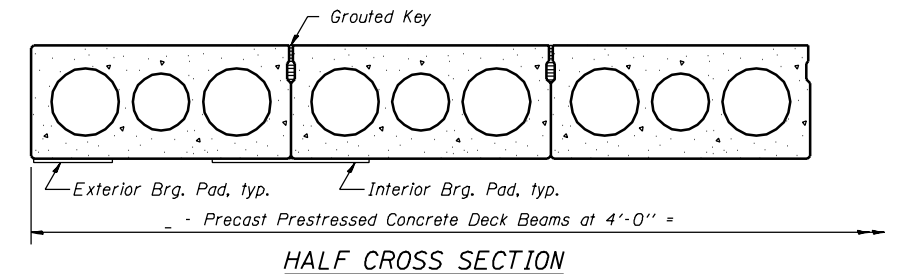
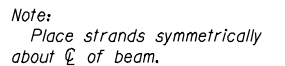
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-4-R

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

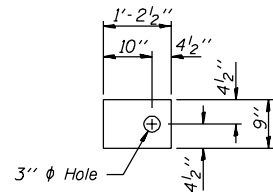
NOTES

Required Release Strength, f'_{ci} , shall be p.s.i.

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

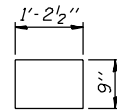
PD-4-RA

10-22-04



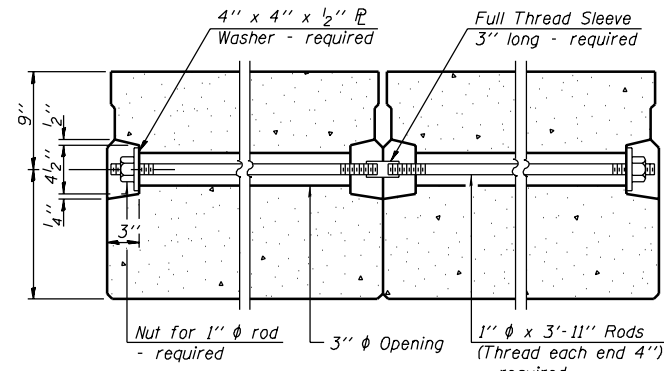
FABRIC BEARING PAD
(Exterior)

BAR U

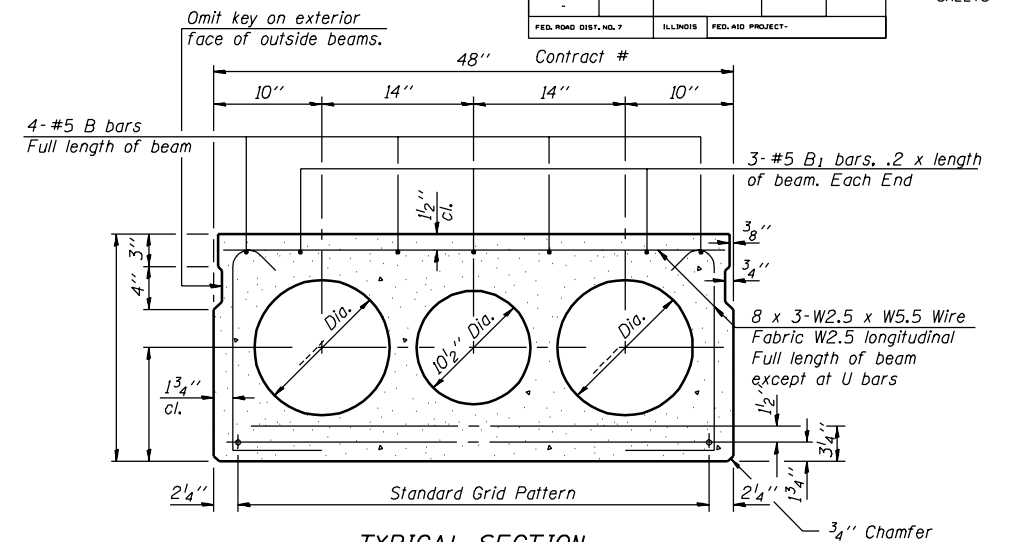


FABRIC BEARING PAD
(Exterior)

EXPANSION

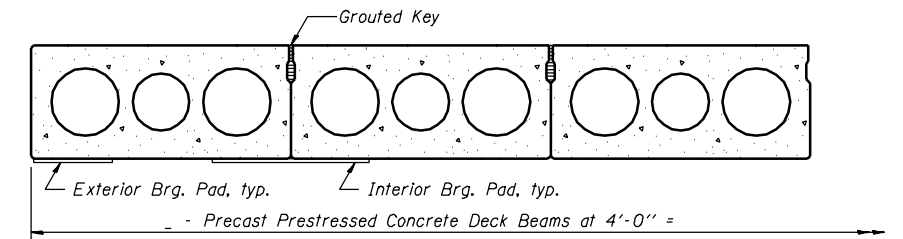


TYPICAL TRANSVERSE TIE ASSEMBLY



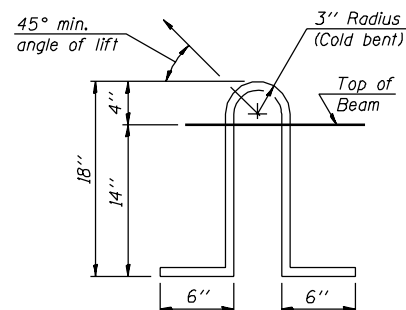
TYPICAL SECTION
 $\frac{1}{2}$ " ϕ Strands, Each Strand Stressed to 30,900 Lbs.
 - Strands $1\frac{3}{4}$ " up, - Strands $3\frac{1}{4}$ " up

Note:
Place strands symmetrically
about \mathcal{C} of beam.



HALF CROSS SECTION

PLAN



LIFTING LOOP DETAIL

END PLAN

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

PD-4-S

10-22-04

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be *p.s.i.*

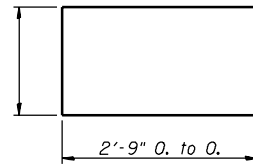
BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS



FABRIC BEARING PAD
(Exterior)

Front view of a rectangular block with a width of $1'-2\frac{1}{2}''$ and a height of $9''$.

FABRIC BEARING PAD
(Exterior)

Technical drawing of a typical section of a concrete beam with three circular voids. The drawing includes dimensions for the overall beam size, void spacing, reinforcement bars, and a standard grid pattern. Annotations specify the number and size of bars, the type of wire fabric, and the stress applied to the strands.

Dimensions:

- Overall width: 48"
- Overall height: 4" 3"
- Void diameter: 10 1/2" Dia.
- Void spacing: 14" (between voids), 10" (from ends)
- Beam length: Full length of beam
- Standard Grid Pattern: 2 1/4" (width of grid), 1 3/4" (height of grid)
- Chamfer: 3/4" Chamfer

Reinforcement:

- 4-#5 B bars (top)
- 3-#5 B₁ bars, .2 x length of beam. Each End (bottom)
- 8 x 3-W2.5 x W5.5 Wire Fabric W2.5 longitudinal (full length of beam except at U bars)
- 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1 3/4" up, - Strands 3/4" up

Other Notes:

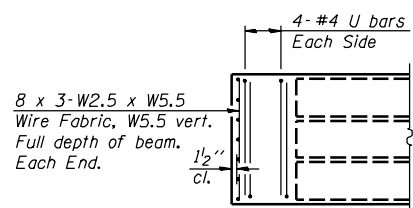
- Omit key on exterior face of outside beams.
- Contract #
- FED. ROAD DIST. NO. 7
- ILLINOIS
- FED. AID PROJECT-

Lifting Loops
2 Each End

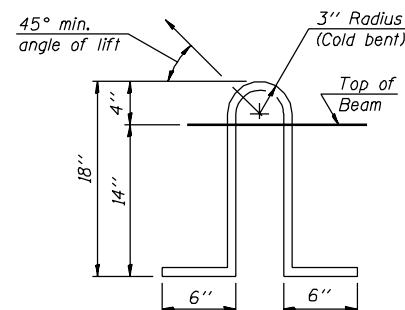
$\frac{1}{4}'' \phi$ Vent holes top
 $\frac{3}{4}'' \phi$ Drain holes bott.

$4'-0''$
 $10''$
 $2'-4''$
 $10''$
 $7''$
 $6''$

2'' ϕ Holes for
dowel rods
fixed ends only



PLAN



NOTES

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

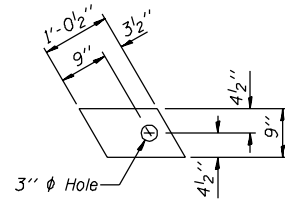
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

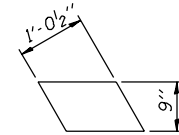
SHEET NO. -

- SHEETS

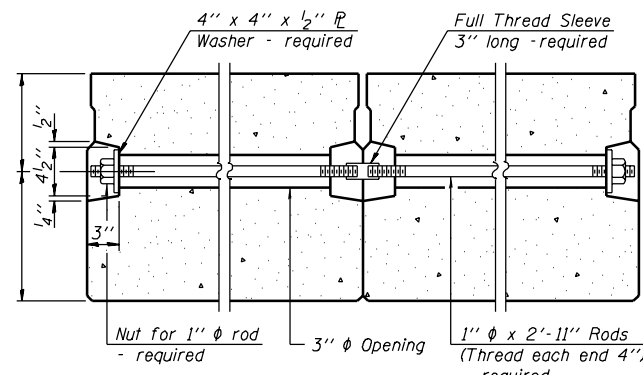


FABRIC BEARING PAD
(Exterior)

EXPANSION



FABRIC BEARING PAD
(Exterior)



*0.2 x Length of beam

Contract #

36"

4 1/2"

27"

4 1/2"

Omit key on exterior face of outside beams.

3/8"

*4-#5 B₁ bars each end

1 1/2" cl.

#3 A bars at ±4'-0" cts. Each End

#5 B Bars Full length of beam

5"

2-#3 A bars evenly spaced between A₁ bars between end blocks (2'-8" long)

3"

1" cl.

#4 B₂ bars full length of beam

3"

3"

#4 A₁ bars at 14" cts.

3/4"

1 1/2" cl.

2 1/4"

#3 U bars at 14" cts.

2 1/4"

3 1/4"

1 3/4"

3 1/2"

Standard Grid Pattern

3 1/2"

3/4" Chamfer

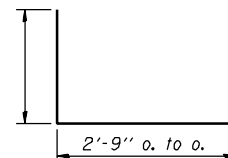
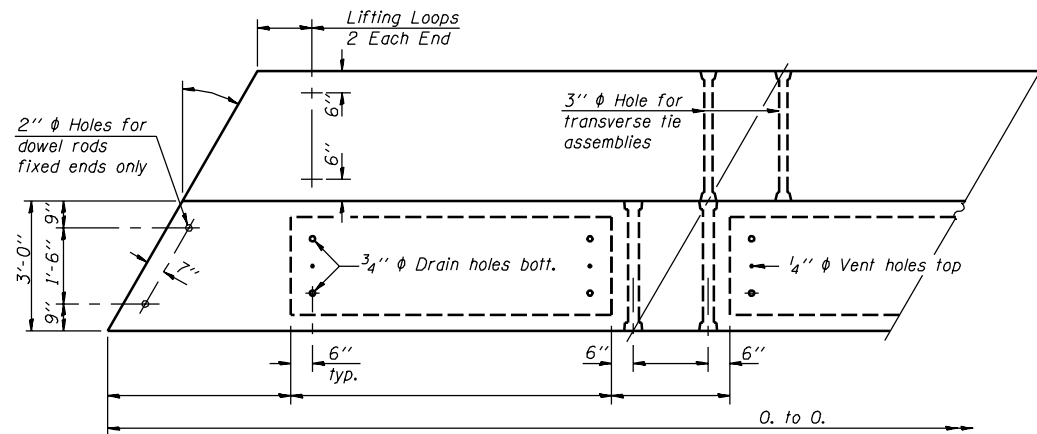
1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1³/₄" up, - Strands 3¹/₄" up

Diagram showing the elevation of a roofline with dimensions:

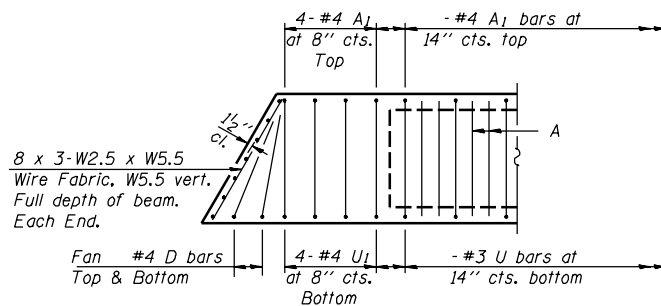
- Overall width: $2'-9''$ o. to o.
- Left vertical height: $1'-7''$
- Left horizontal offset: $2\frac{1}{2}''$
- Left horizontal distance: $8''$
- Left horizontal distance: $1'-0''$
- Right horizontal distance: $8''$
- Right horizontal offset: $2\frac{1}{2}''$
- Right slope: $3\frac{1}{2}''$

A diagram showing a right-angled corner. The horizontal leg is labeled $2'-5''$ and the vertical leg is also labeled $2'-5''$.

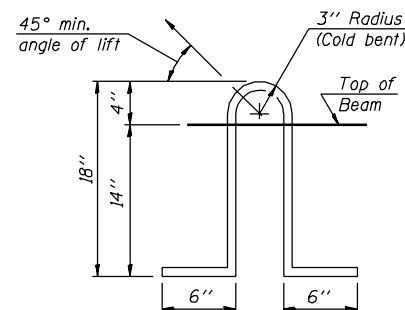
BAR D

BARS U & U_1 

PLAN



END PLAN



LIFTING LOOP DETAIL

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

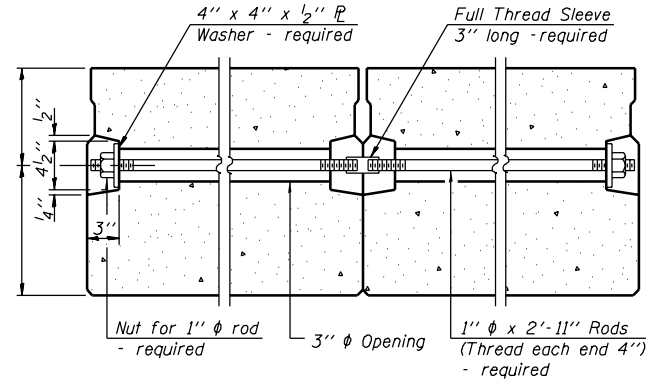
PD-5-L

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS



***0.2 x Length of beam**

Contract #

Omit key on exterior face of outside beams.

36"

4 1/2"

27"

4 1/2"

*4-#5 B₁ bars each end

#3 A bars at ±4'-0" cts. Each End

3/8"

1 1/2" cl.

#5 B Bars Full length of beam

2-#3 A bars evenly spaced between A₁ bars between end blocks (2'-8" long)

3"

1" cl.

#4 B₂ bars full length of beam

3"

1 1/2" cl.

2 1/4"

3"

#4 A₁ bars at 14" cts.

#3 U bars at 14" cts.

3 1/4"

2 1/4"

5"

5"

3 1/2"

1 3/4"

Standard Grid Pattern

3 1/2"

3/4" Chamfer

1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands 1³/₄" up, - Strands 3¹/₄" up

Technical drawings of reinforcement bars:

- BAR A1:** A U-shaped bar with a total width of 2'-9" o. to o., a height of 1'-7", and a 3/2" slope on the right side. The bar has a central opening of 1'-0" and a width of 8" on each side. The height of the vertical legs is 2'-9" o. to o.
- BAR D:** A simple L-shaped bar.
- BARS U & U1:** U-shaped bars with a total width of 2'-9" o. to o.

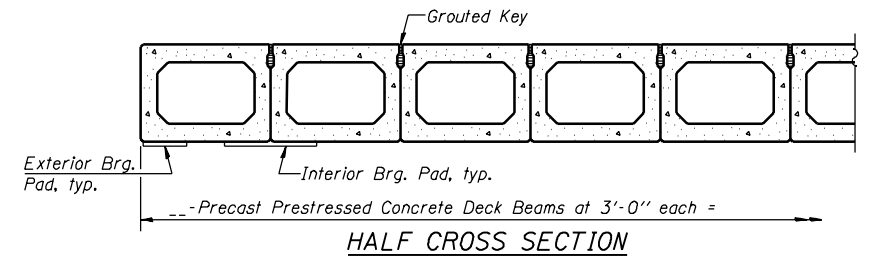


Diagram illustrating the reinforcement details for a beam cross-section. The reinforcement is provided in the top and bottom of the beam.

Top Reinforcement:

- 4 - #4 D bars at 8" cts. (center-to-center)
- 4 - #4 A1 bars at 14" cts. (center-to-center)

Bottom Reinforcement:

- 4 - #4 U1 bars at 8" cts. (center-to-center)
- 3 - #3 U bars at 14" cts. (center-to-center)

Other Details:

- W2.5 x W5.5 fabric, W5.5 vert. (vertical)
- Depth of beam, End.
- Section line A-A is indicated.

Technical drawing of a cold-chamber die casting mold. The mold is shown in cross-section, revealing two vertical channels. The top of the mold is a horizontal plate with a thickness of 4 inches. The vertical channels are 6 inches wide at the base. The total height of the mold is 18 inches. The distance from the base to the top of the vertical channels is 14 inches. The top of the vertical channels is rounded with a 3-inch radius, labeled as "Cold bent". The angle of lift is indicated as 45° min. The top of the mold is labeled "Top of Beam".

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

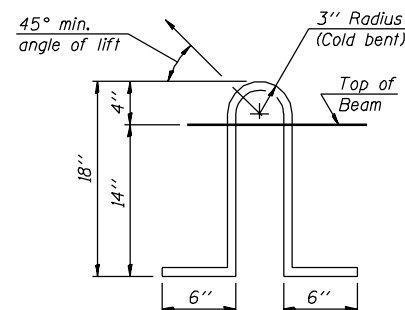
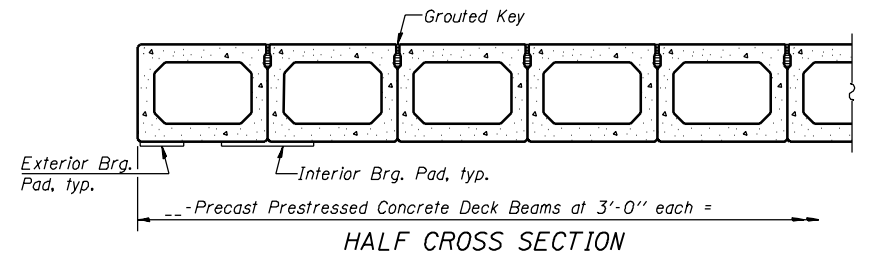
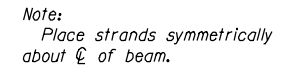
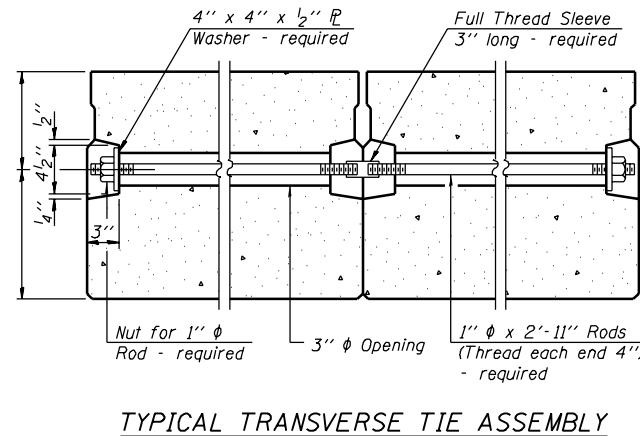
DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS



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Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS

A diagram of a key with a width of 2'-5" and a height of 9". The key is shown in a perspective view, with a dashed line indicating its length. The dimensions are labeled as 2'-5" and 9".

A diagram of a parallelogram. The top-left slanted side is labeled $1'-2\frac{1}{2}''$. A vertical line segment to the right of the parallelogram indicates its height, labeled $9''$.

Technical drawing of a three-panel window assembly showing dimensions and required hardware. The drawing includes the following labels and dimensions:

- Dimensions:**
 - Overall height: 18"
 - Panel height: 9"
 - Panel width: 4 1/2"
 - Panel thickness: 1 1/4"
 - Panel depth: 3"
- Hardware and Components:**
 - 4" x 4" x 1/2" PL Washer - required** (pointing to the top plate)
 - Full Thread Sleeve 3" long - required** (pointing to the central sleeve)
 - Nut for 1" Ø rod - required** (pointing to the nut on the left rod)
 - 3" Ø Opening** (pointing to the central opening)
 - 1" Ø x 3'-11" Rods (Thread each end 4" required)** (pointing to the rods)

[illegible][illegible]

Technical drawing of a cold-chamber die casting mold. The mold is shown in cross-section, revealing two vertical channels. The top of the mold is labeled "45° min. angle of lift" with an arrow pointing to the top edge. The top of the mold is also labeled "3'' Radius (Cold bent)" with an arrow pointing to the top edge. The top of the mold is labeled "Top of Beam" with an arrow pointing to the top edge. The mold has a total height of 18" and a width of 6" for each channel. The distance between the channels is 14". The distance from the top of the mold to the top of the channels is 4".

Diagram showing a corner with dimensions: 1'-9" and 3'-9" o. to o.

Grouted Key

Exterior Brg. Pad, typ.

Interior Brg. Pad, typ.

---Precast Prestressed Concrete Deck Beams at 4'-0" each =

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

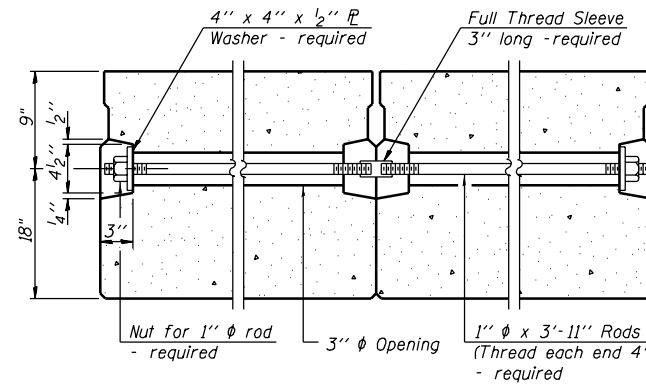
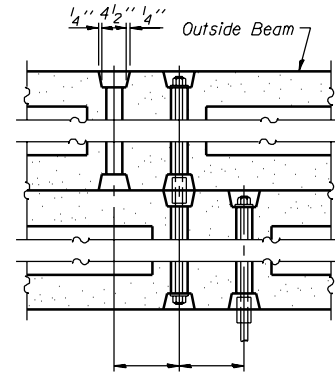
PD-6-L

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS



*0.2 x Length of beam

48"

4 1/2" 39" 4 1/2"

5-#5 B bars
Full Length

*4-#5 B1 bars
Each End

#3 A bars at 11" cts.
3'-8" long

Omit key on exterior
face of outside beams.

3/8" 5 1/2" 3/4" 16 1/2" 27" 2 1/4" 5" 3 1/4" 13 1/4" 3 5/8" 3 5/8" 3/4" Chamfer

4-#4 B2 bars
Full Length

#4 A1 bars at 11" cts.

#3 U bars at 11" cts.

Standard Grid Pattern

Note:
Place strands symmetrically
about \mathcal{C} of beam.

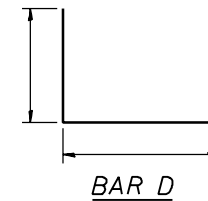


Diagram illustrating the HALF CROSS SECTION of a bridge deck structure, showing four precast prestressed concrete deck beams separated by grouted keys.

Labels and Dimensions:

- Exterior Brg. Pad, typ.
- Interior Brg. Pad, typ.
- Grouted Key
- Precast Prestressed Concrete Deck Beams at 4'-0" each =
- HALF CROSS SECTION

BILL OF MATERIAL

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The $\frac{1}{2}$ " ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

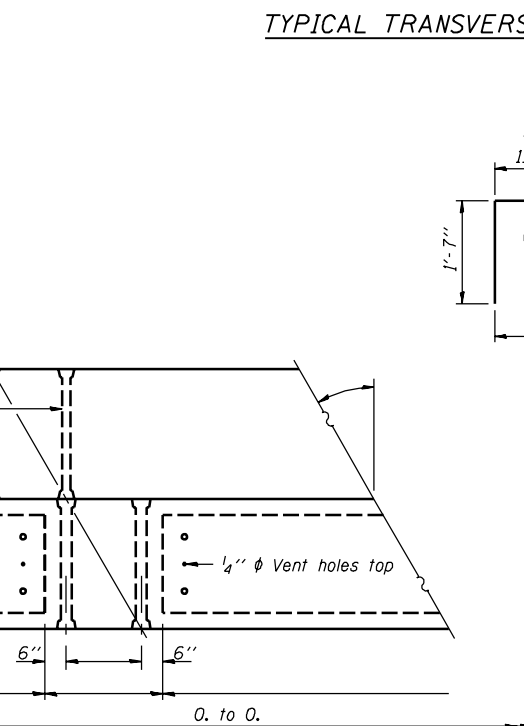
Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'_{ci} , shall be p.s.i.



8 x 3-W2.5 x W5.5
Wire Fabric, W5.5 vert.
Full depth of beam.
Each End.

4-#4 D bars
Top & Bottom
Each End

4-#4 A₁
at 8" cts.
Top

4-#4 A₁ bars at
11" cts. top

4-#4 U₁
at 8" cts.
Bottom

4-#3 U bars at
11" cts. bottom

1/2" cts.

A

Technical drawing of a bent plate. The drawing shows a plate with a total height of 18 inches. The top horizontal section is 4 inches thick. The vertical section has a width of 6 inches. The bottom horizontal section is 6 inches wide. The plate is bent at a 45° angle, with a minimum angle of lift indicated. The bend is a cold bent with a 3-inch radius. The top of the beam is indicated.

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURE
CHECKED -		

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS

FABRIC BEARING PAD
(Exterior)

FABRIC BEARING PAD
(Exterior)

Plan view of a rectangular structure. Dimensions include a total width of 4'-0" and a total length of 1'-0". Key features and dimensions include:

- Lifting Loops:** 2 Each End, with a 6" diameter.
- 2" ϕ Holes for dowel rods fixed ends only:** Located at the ends, with a 10" spacing.
- 3" ϕ Hole for transverse tie assemblies:** Located in the center.
- 3/4" ϕ Drain holes bott.:** Located in the center, with a 6" typical spacing.
- 1/4" ϕ Vent holes top:** Located on the right side, with a 6" spacing.
- PLAN:** The overall view of the structure.

4 - #4 A_1
at 8" cts.
Top

8 x 3-W2.5 x W5.5
Wire Fabric, W5.5 vert.
Full depth of beam.
Each End.

1 1/2" cts.

4 - #4 U_1
at 8" cts.

- #4 A_1 bars at
14" cts. top

- #3 U bars at 14" cts.

A

Technical drawing of a cold bent pipe. The drawing shows a side view of a pipe with a 90-degree bend. The dimensions are as follows:

- 45° min. angle of lift:** Indicated by an arrow pointing to the bend angle.
- 3" Radius (Cold bent):** Indicated by an arrow pointing to the curved section of the pipe.
- Top of Beam:** Indicated by an arrow pointing to the horizontal line representing the beam.
- 18":** Total height of the pipe from the base to the top of the bend.
- 14":** Height of the pipe from the base to the start of the bend.
- 4":** Height of the pipe from the top of the bend to the top of the beam.
- 6":** Width of the pipe at the base.

3"
11 1/2"
16"
3"
11 1/2"
1'-7"
3"
4"
3'-9" o. to o.
BAR A1

BAR A1

Diagram showing a corner with dimensions: 1'-9" and 3'-9" o. to o.

[illegible]

$\frac{1}{2}$ " ϕ Strands, Each Strand Stressed to 30,900 Lbs.
- Strands $1\frac{3}{4}$ " up, - Strands $3\frac{1}{4}$ " up

Note:
Place strands symmetrically
about \mathcal{C} of beam.

Grouted Key

Exterior Brg. Pad, typ.

Interior Brg. Pad, typ.

---Precast Prestressed Concrete Deck Beams at 4'-0" each =

HALF CROSS SECTION

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be $\frac{1}{2}$ " ϕ -270 ksi strands, as shown.

The $\frac{1}{2}$ " ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be p.s.i.

<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
<i>Precast Prestressed Conc. Deck Bms.</i>			<i>Sq. Ft.</i>	

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

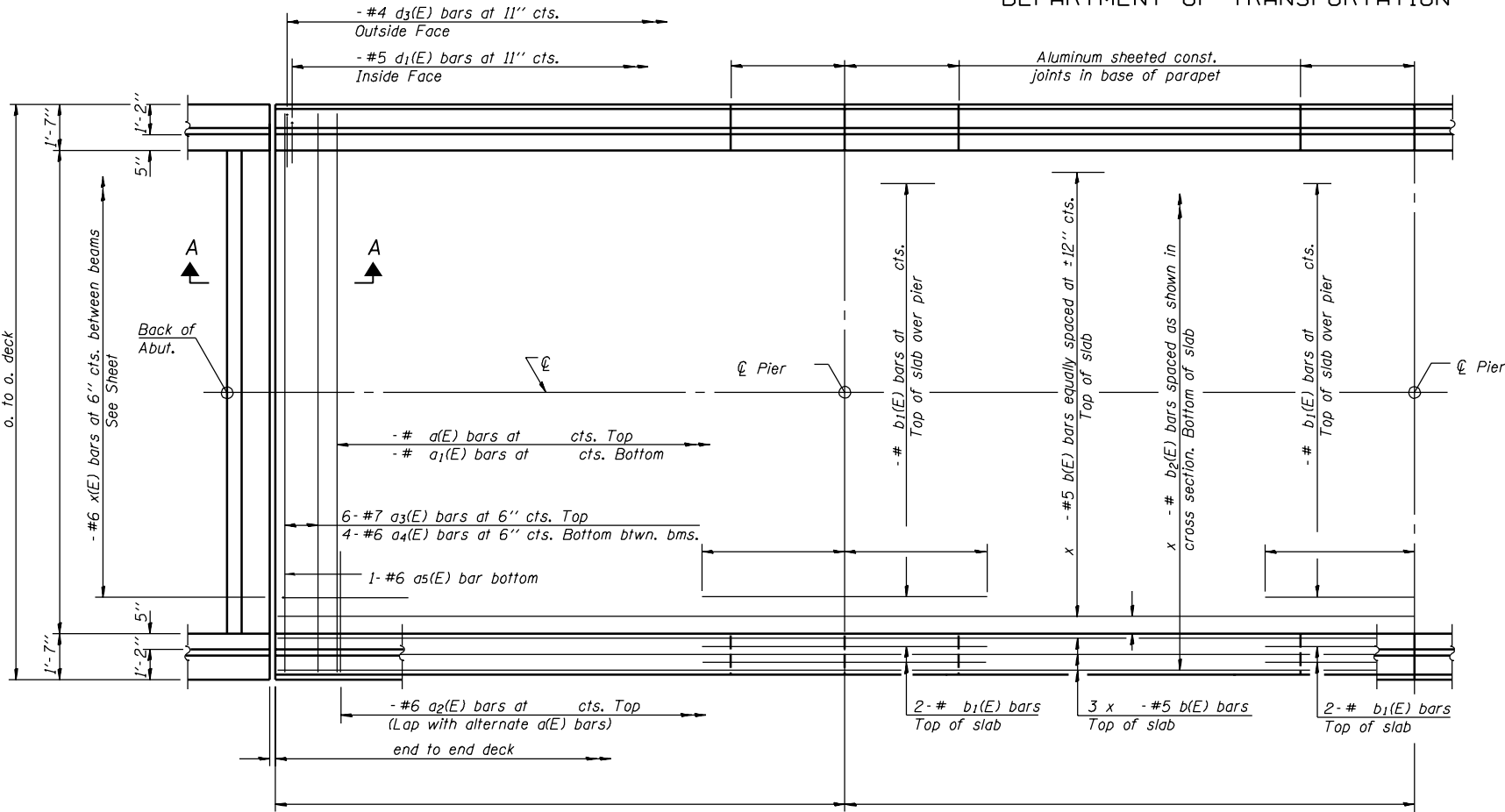
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

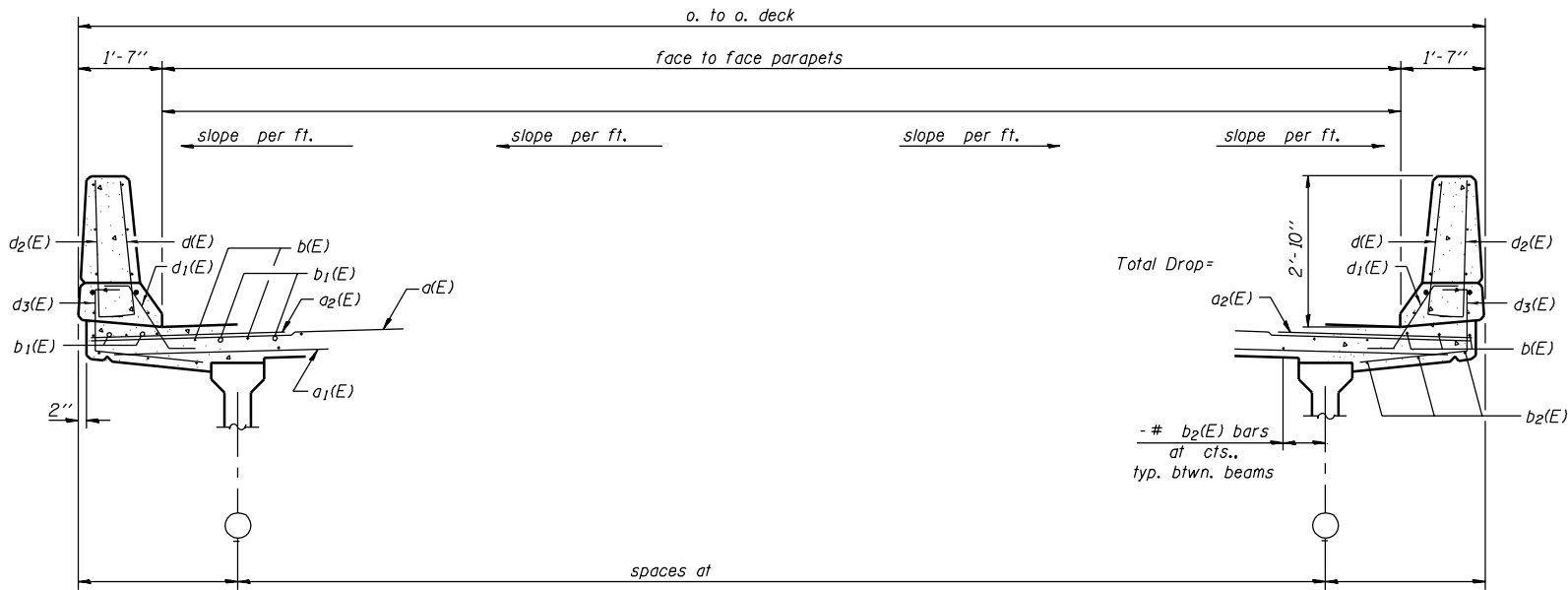
SHEET NO. -

- SHEETS

Contract #



PARTIAL PLAN



CROSS SECTION
(Looking

Notes:
See sheet of for superstructure details and Bill of Material.
For Section A-A and diaphragm details see sheet of .
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

PI-1-0

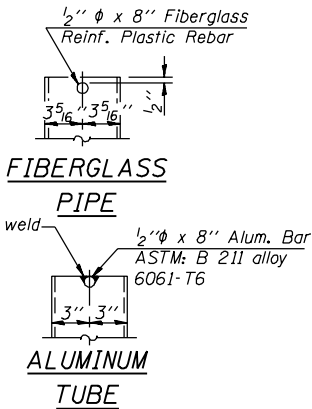
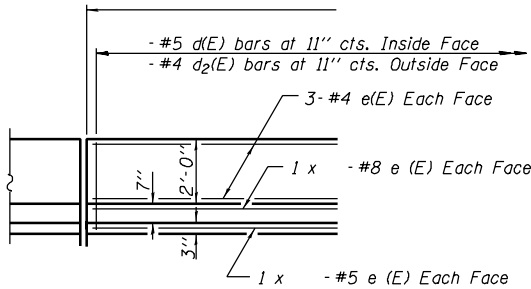
10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

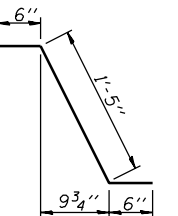
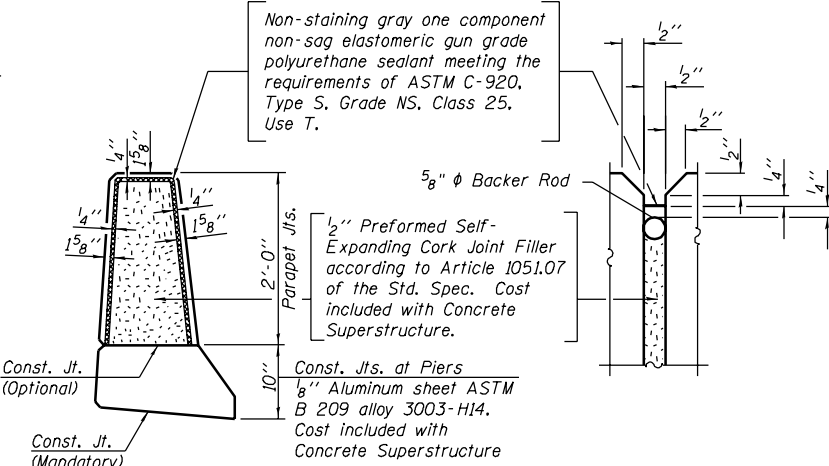
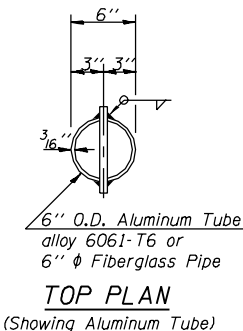
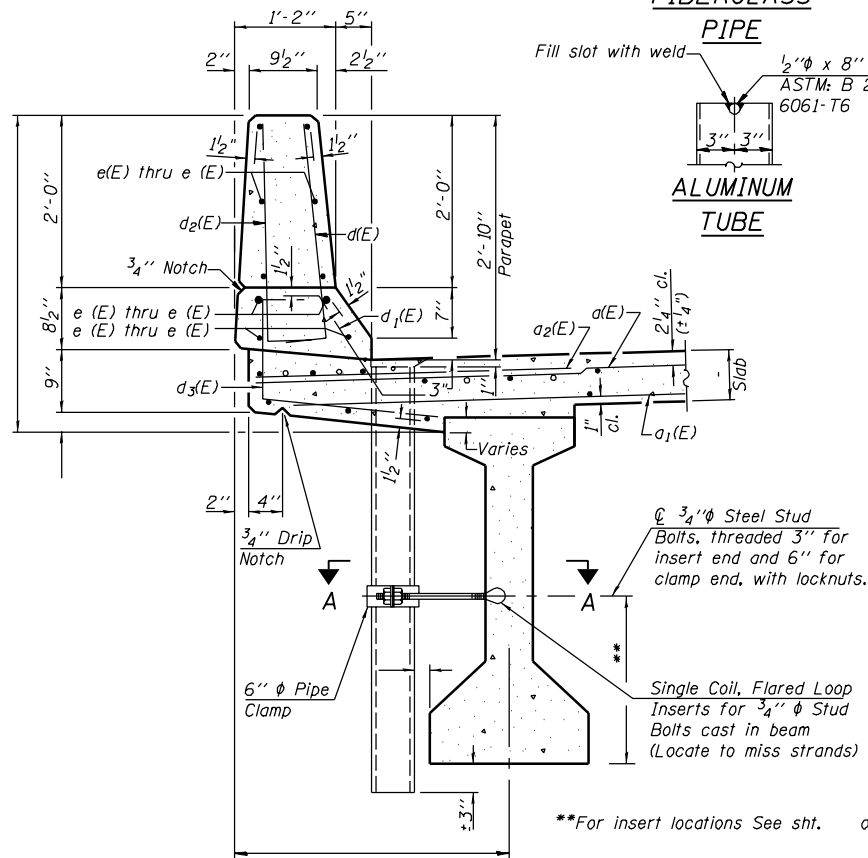
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
- SHEETS

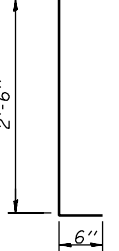
Contract #



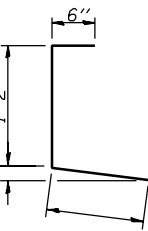
INSIDE ELEVATION OF PARAPET



BAR d1(E)



BARS d(E) & d2(E)



BAR d3(E)

SUPERSTRUCTURE
BILL OF MATERIAL

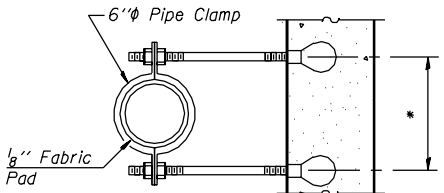
Bar	No.	Size	Length	Shape
d(E)				
a1(E)				
a2(E)	#6	4'-6"		
a3(E)	#7			
a4(E)	#6			
b(E)	#5			
b1(E)	#6			
b2(E)				
d(E)	#5	3'-0"		
d1(E)	#5	2'-5"		
d2(E)	#4	3'-0"		
d3(E)	#4			
e(E)	#4			
e1(E)	#4			
m(E)	#4			
m1(E)	#6			
m2(E)	#8			
s(E)	#4			
x(E)	#6			
Reinforcement Bars, Epoxy Coated Concrete Superstructure		Lbs.		
		Cu. Yds.		

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED -	200
CHECKED -	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

PI-1-D

10-22-04



SECTION A-A

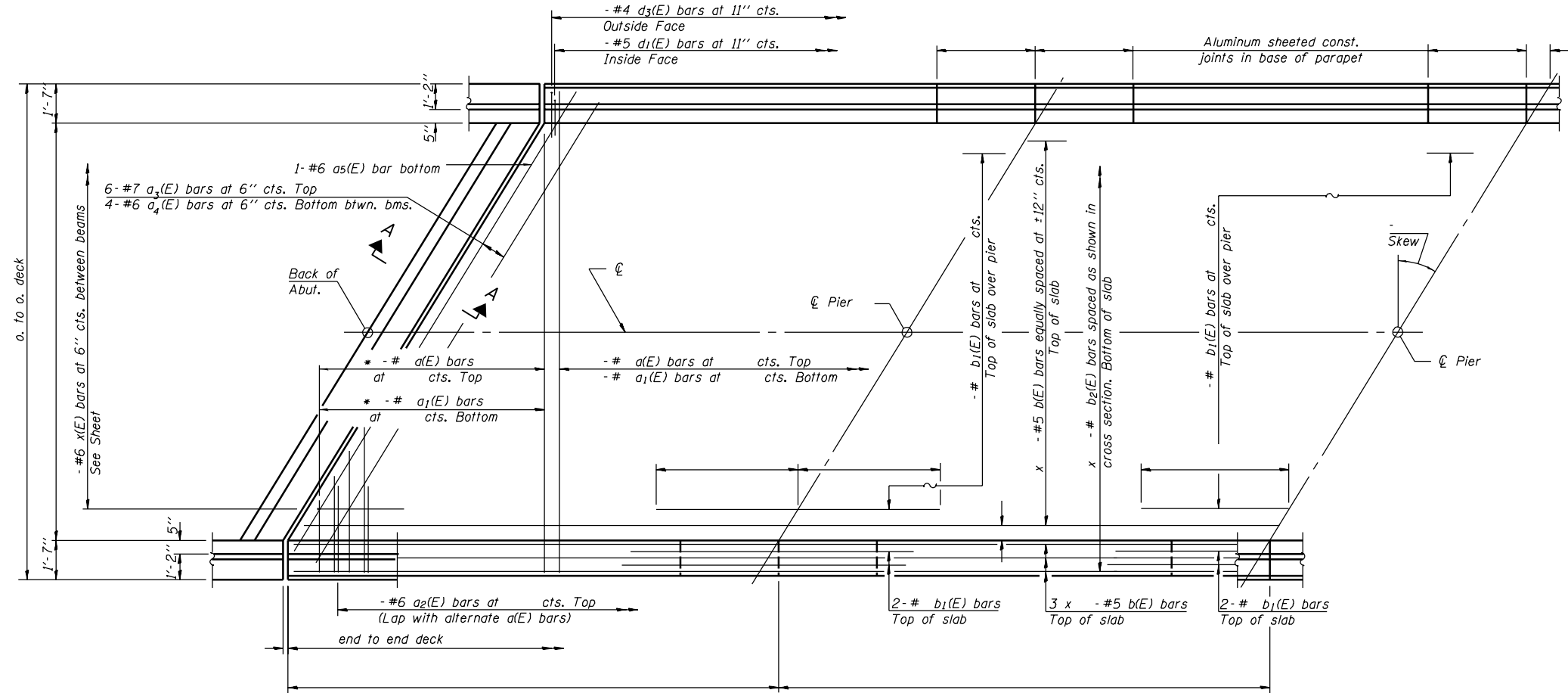
Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M 232.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

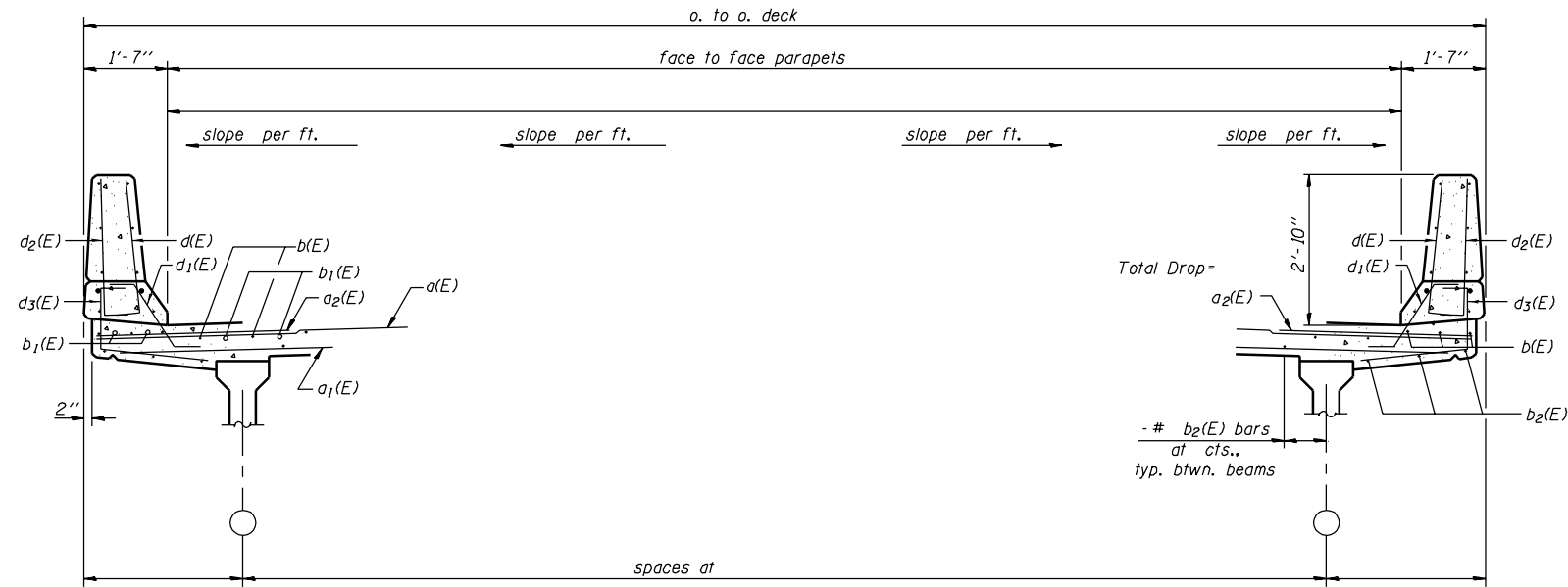
SHEET NO. -
- SHEETS

Contract #



*Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

PARTIAL PLAN



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Reinforcement bars designated (E) shall be
epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

PI-1-L(>15°)

10-22-04

CROSS SECTION
(Looking

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -

- SHEETS

[illegible]

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

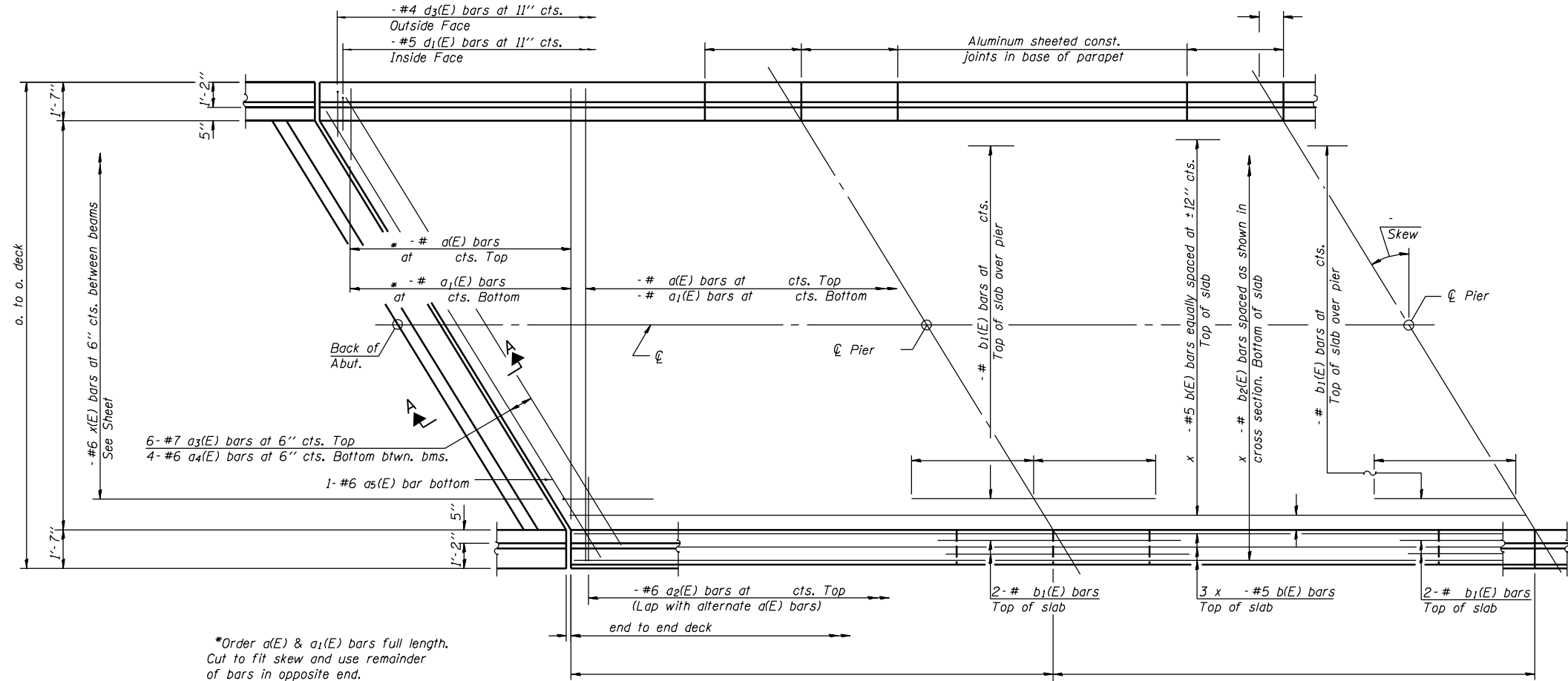
CROSS SECTION
(Looking

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

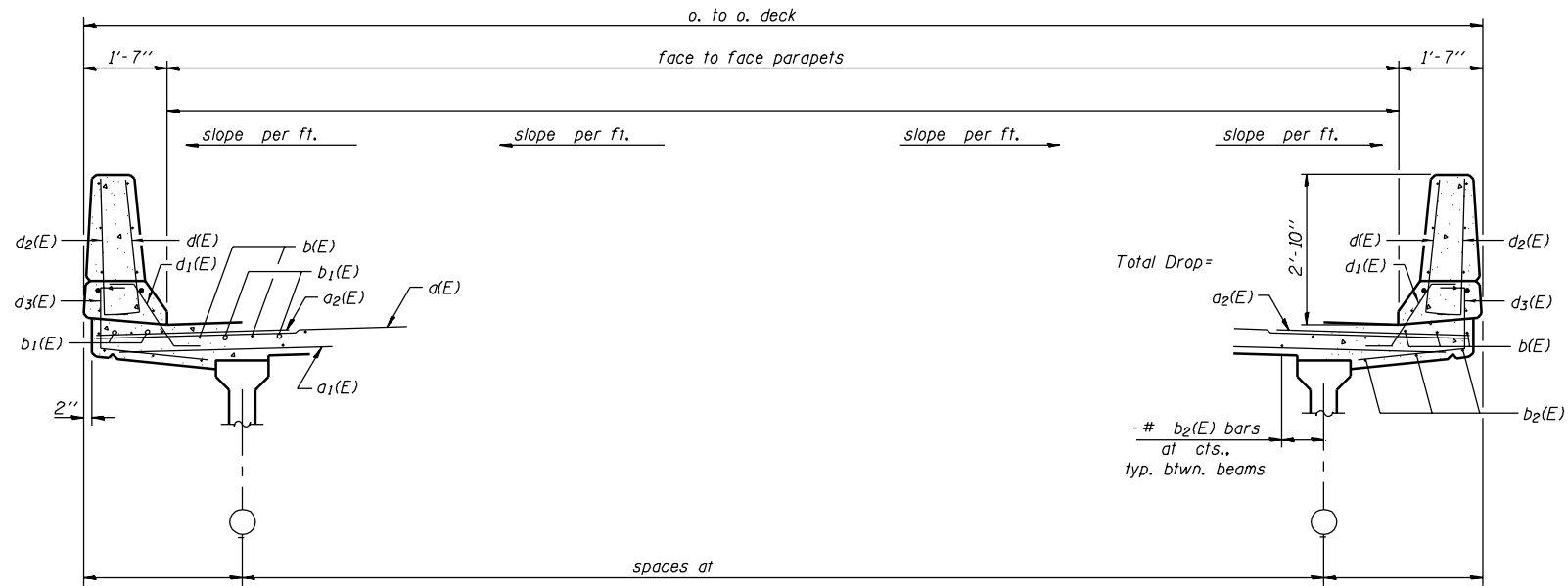
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
- SHEETS

Contract #



PARTIAL PLAN



CROSS SECTION
(Looking

Notes:
See sheet of for superstructure details and Bill of Material.
For Section A-A and diaphragm details see sheet of .
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	PASSED	ENGINEER OF BRIDGE DESIGN
CHECKED -		ENGINEER OF BRIDGES AND STRUCTURES

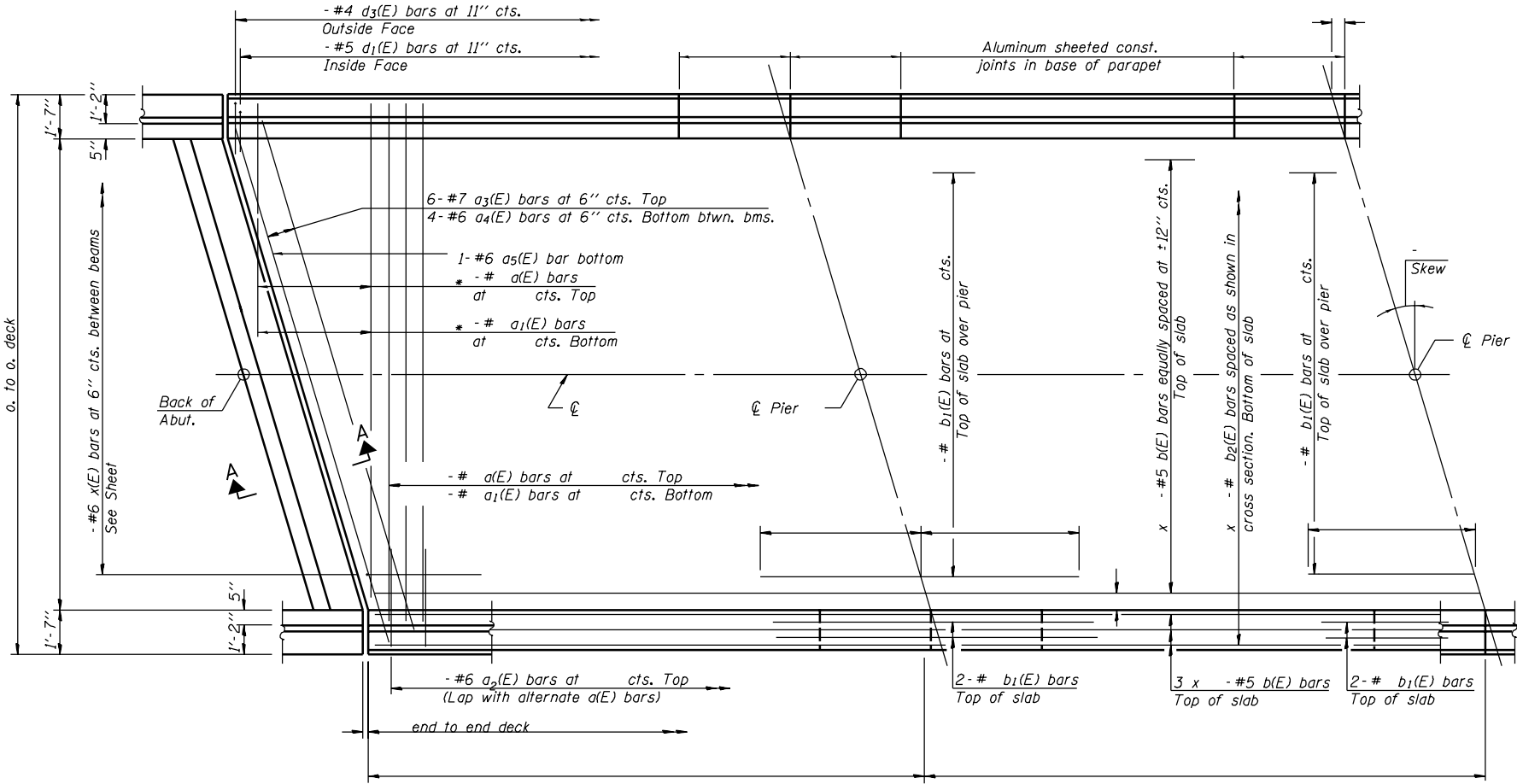
PI-1-R(>15°) 10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

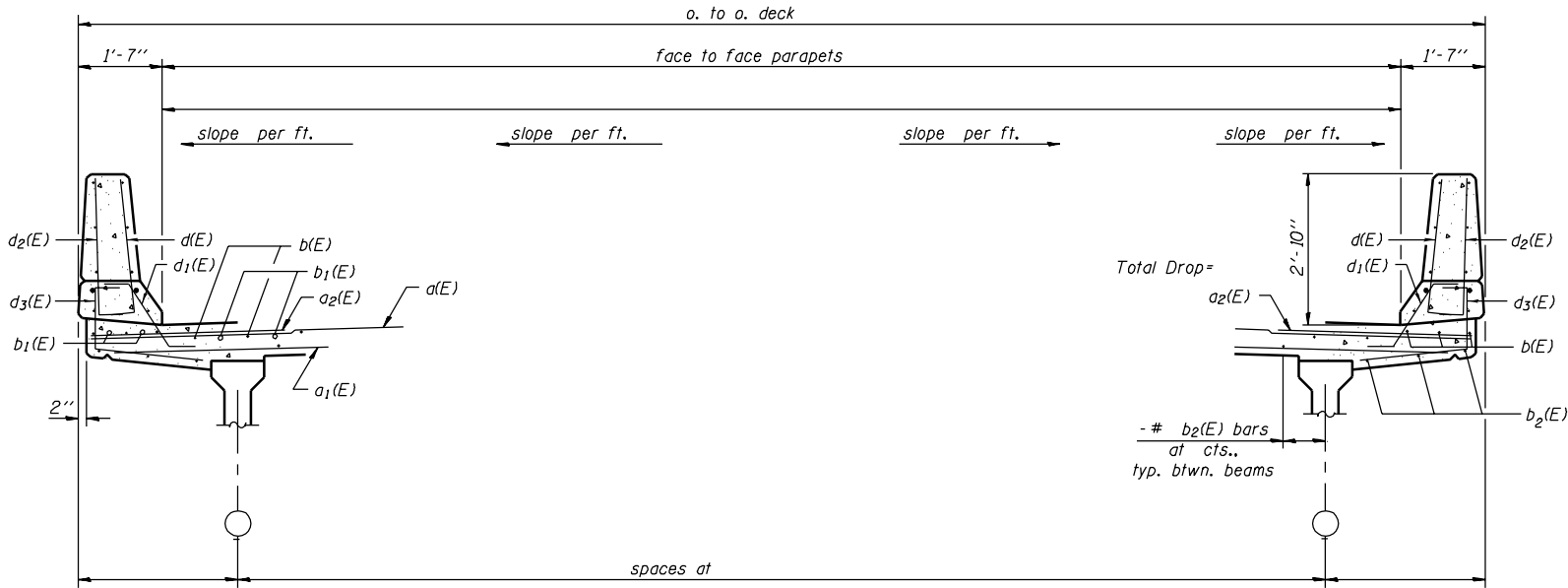
SHEET NO. -
- SHEETS

Contract #



*Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

PARTIAL PLAN



Notes:
See sheet of for superstructure details
and Bill of Material.
For Section A-A and diaphragm details see
sheet of .
Reinforcement bars designated (E) shall be
epoxy coated.
Bars indicated thus 20 x 3- #5 etc. indicates
20 lines of bars with 3 lengths per line.
See sheet of for parapet reinforcement.

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	PASSED	ENGINEER OF BRIDGE DESIGN
CHECKED -		ENGINEER OF BRIDGES AND STRUCTURES

PI-1-R(15°)

10-22-04

CROSS SECTION
(Looking

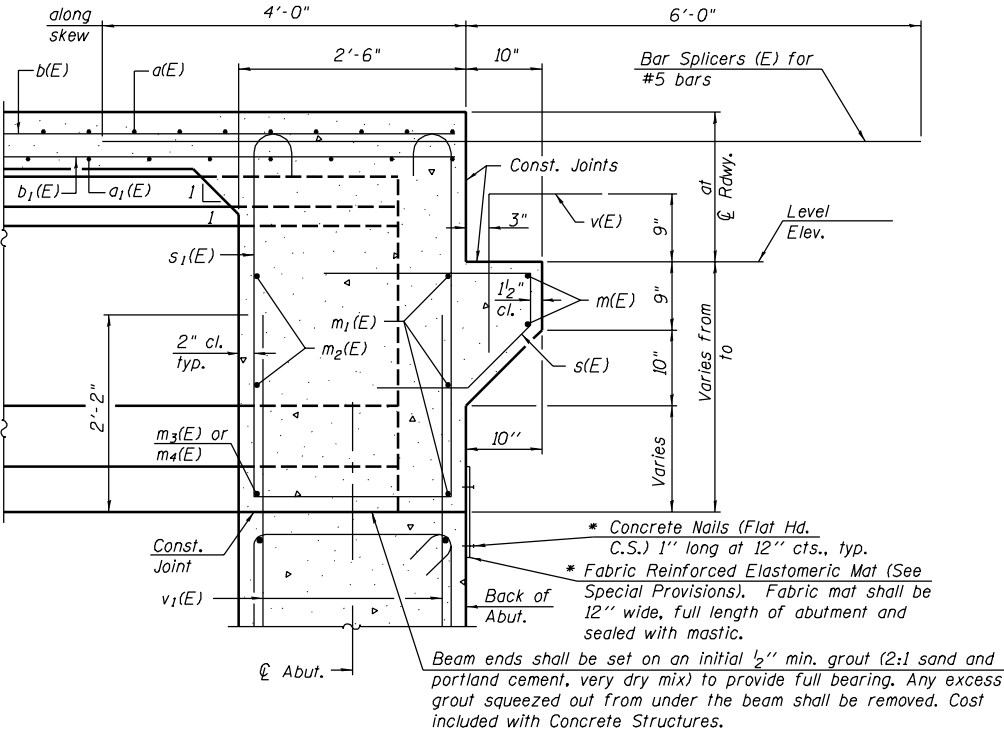
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT -	

SHEET NO. -

- SHEETS

Contract #



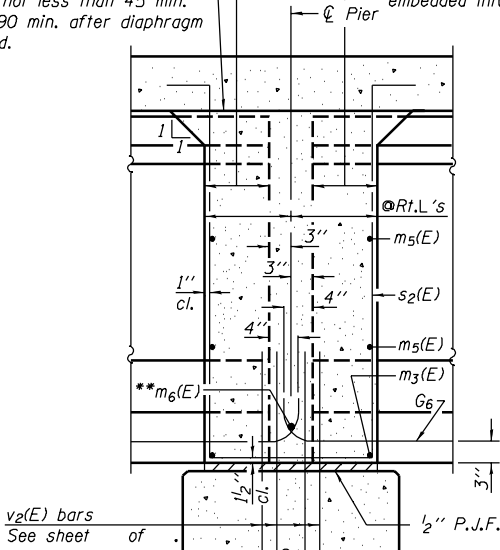
SECTION A-A

Dimensions at right angles to abutment, except as shown.

* Cost included with Concrete Structures.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

Roofing felt shall be bonded to side of beam embedded into diaphragm.



SECTION B-B

Dimensions along \bar{C} of beam, except as shown.

** Tightly fasten the #8 bars together with No. 9 wire ties.

Note:
See sheet of for location of Sections A-A and B-B.

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

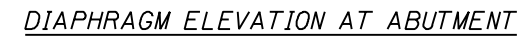
PI-2DDI

10-22-04

PLAN AT PIER
(Showing bearing pad and PJF details)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #



Technical drawing showing a cross-section of a roof edge detail. The drawing includes the following components and specifications:

- Roofing:** 90 Lb. Roofing Felt, typ.
- Reinforcement:**
 - #4 m₅(E) bars at 15" cts. Each Face, typ. btwn. bms.
 - 1- #8 m₆(E) bar Eq. Bm.
 - 1- #6 m₃(E) bar Each Face, typ. btwn. bms.
 - #4 s₂(E) bars at 12" cts., typ. btwn. bms.
- Structural Elements:**
 - 2'-0" typ. (width of section)
 - 2" min. (thickness of concrete)
 - 1" P.J.F. on Vert. Face
 - 1/2" P.J.F.
 - 1- #8 m₆(E) bar Cut to fit
 - 1/8" (thickness of metal flashing)
 - Side retainer
 - Anchor Bolt with washer
- Other Details:**
 - 2" x 6" Fabric Pad
 - Dimensions: 4", 6", 8", 12", 15", 18", 24"

*Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.*

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

10-22-04

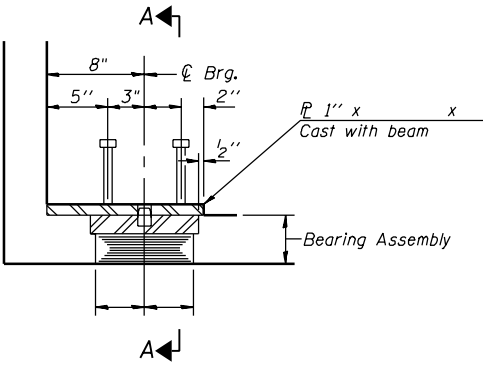
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

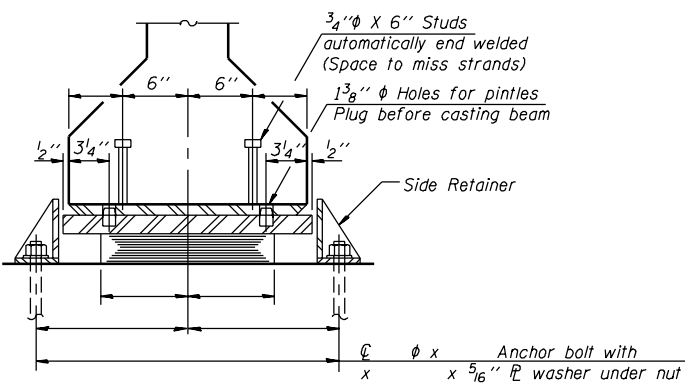
SHEET NO. -

- SHEETS

Contract #



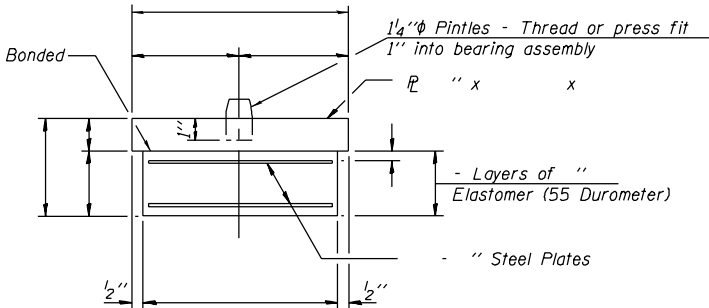
SECTION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

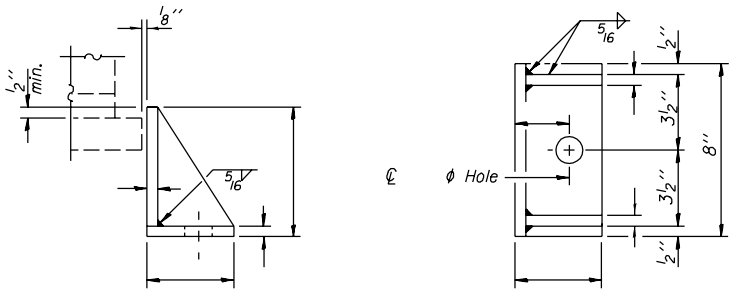
Notes:
After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place.
See sheet of for anchor bolt installation.



PINTLE

BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	ENGINEER OF BRIDGE DESIGN	
CHECKED -	PASSED	
	ENGINEER OF BRIDGES AND STRUCTURES	

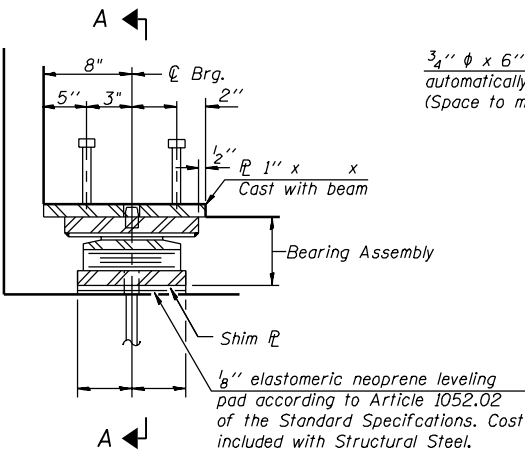
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

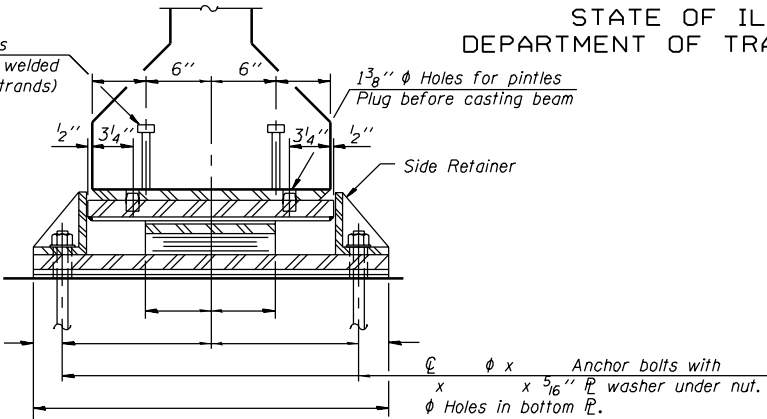
SHEET NO. -

- SHEETS

Contract #



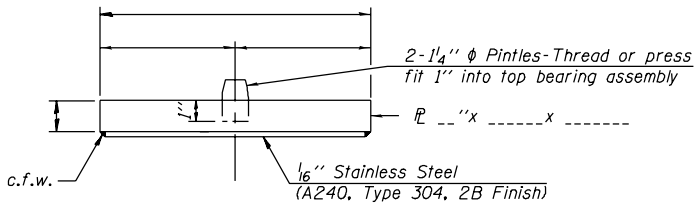
SECTION AT ABUT.



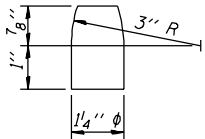
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

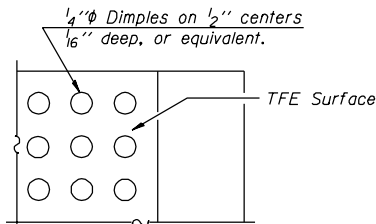
Notes:
After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. See sheet of for anchor bolt installation.



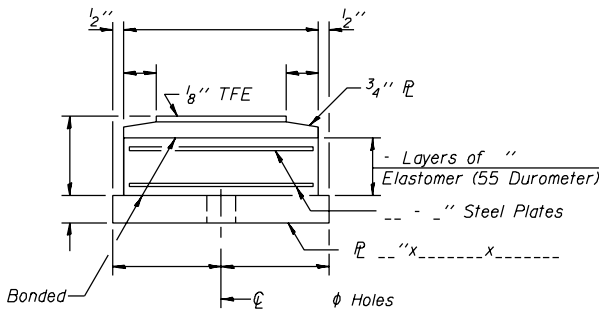
TOP BEARING ASSEMBLY



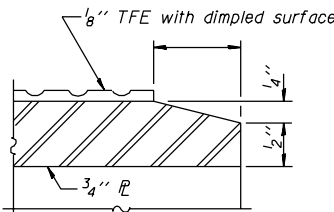
PINTLE



PLAN-TFE SURFACE

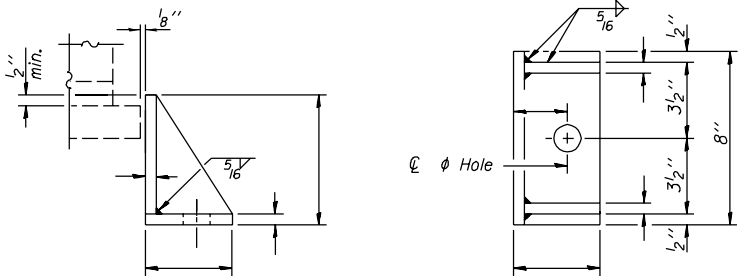


BOTTOM BEARING ASSEMBLY



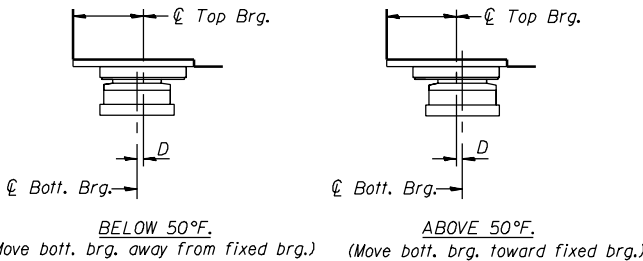
SECTION THRU TFE

Note:
The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	ENGINEER OF BRIDGE DESIGN	
CHECKED -	PASSED	
	ENGINEER OF BRIDGES AND STRUCTURES	

PI-2E-2

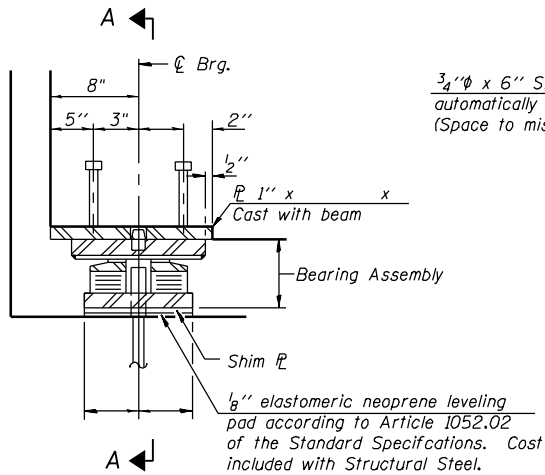
10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

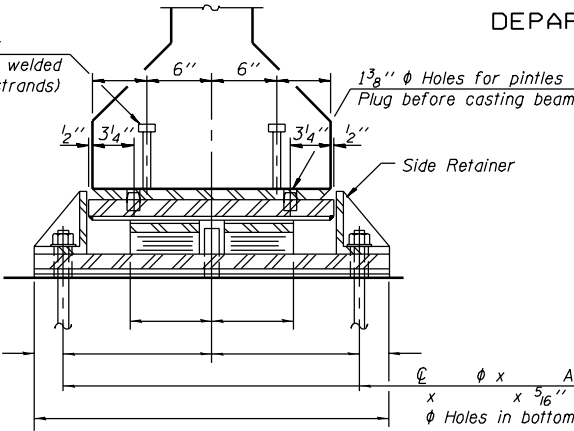
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
- SHEETS

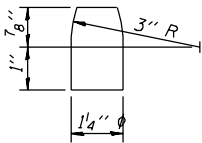
Contract #



SECTION AT ABUT.



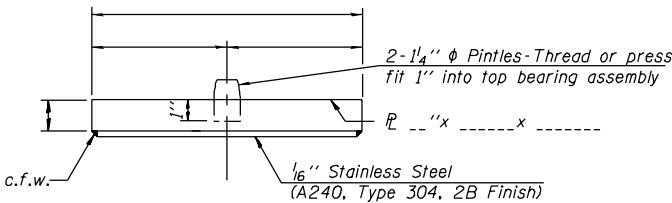
SECTION A-A



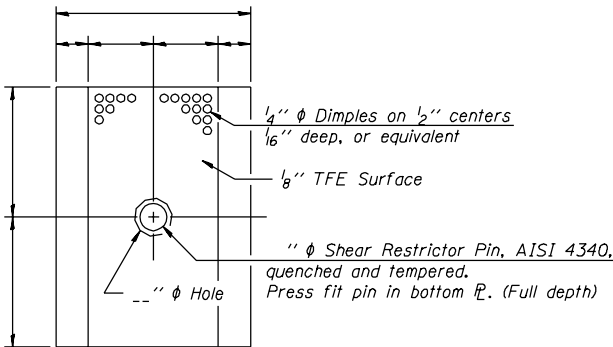
PINTLE

TYPE III TFE ELASTOMERIC EXP. BRG.

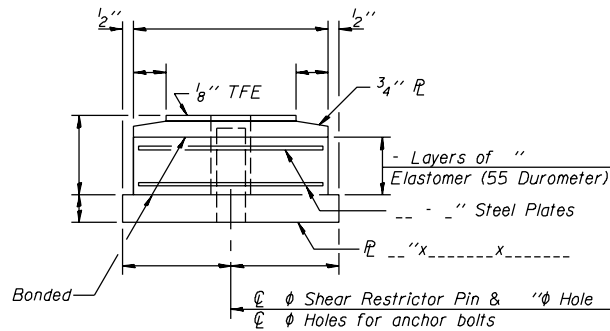
Notes:
After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. See sheet of for anchor bolt installation.



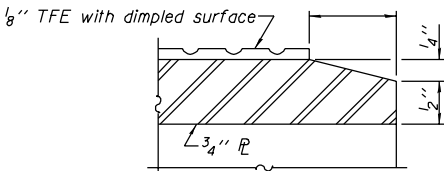
TOP BEARING ASSEMBLY



PLAN-TFE ELASTOMERIC BRG.

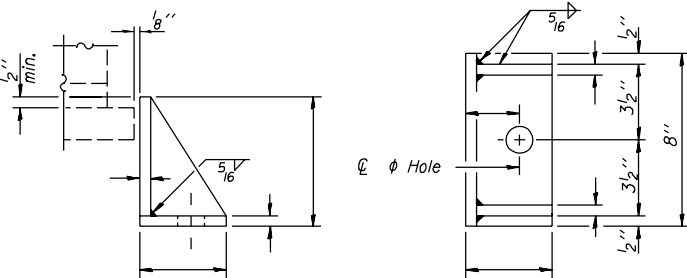


BOTTOM BEARING ASSEMBLY



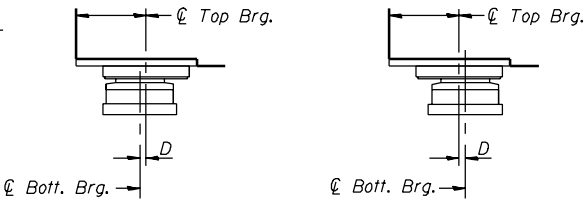
SECTION THRU TFE

Note:
The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type 1. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type III	Each	

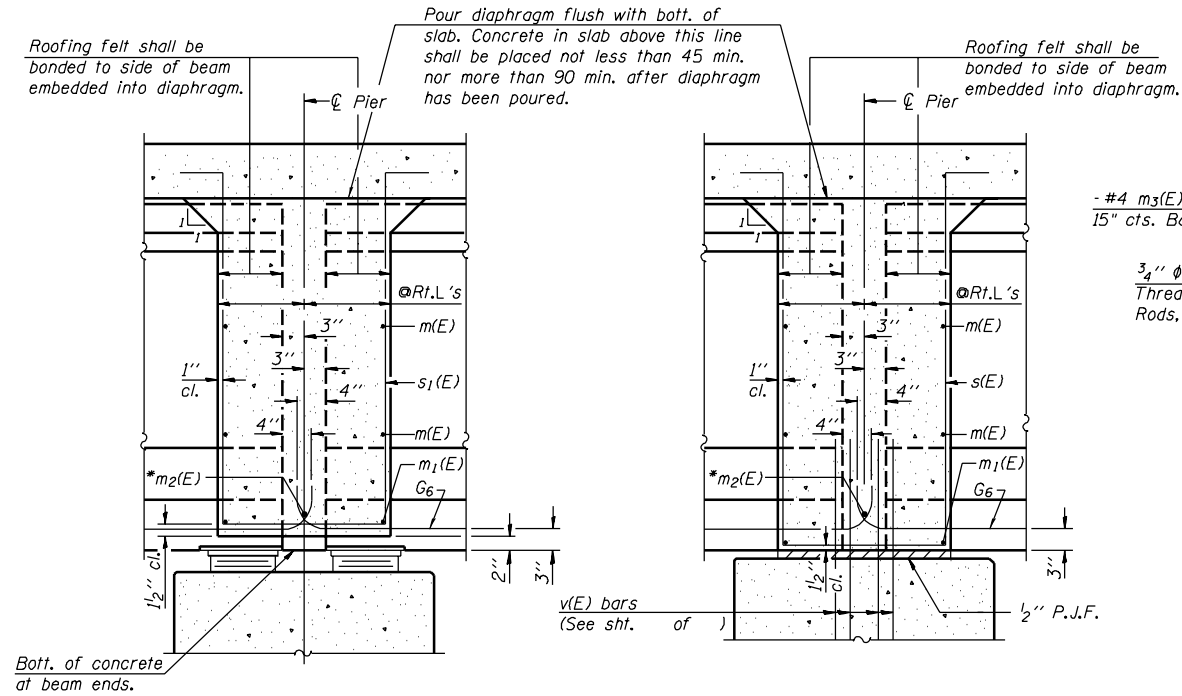
DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	ENGINEER OF BRIDGE DESIGN	
CHECKED -	PASSED	
	ENGINEER OF BRIDGES AND STRUCTURES	

PI-2E-3

10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

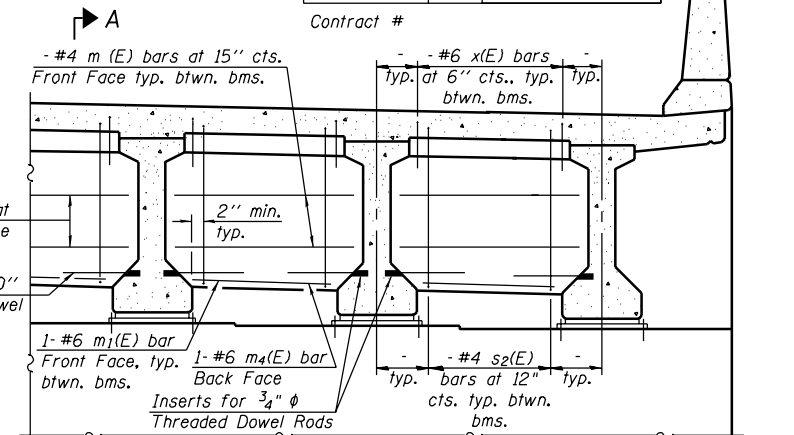
SHEET NO. -
- SHEETS



SECTION C-C
AT PIER
(Fixed)

- #4 m3(E) bars at
15" cts. Back Face

$3_4'' \phi \times 2'-0''$
Threaded Dowe
Rods, typ.



2- #4 m(E) bars at 15" cts.
Each Face, typ. btwn. bms.

90 Lbs. Roofing Felt, typ.

2'-0" typ.

2" min. typ.

1- #8 m₂(E) bar (Ed. Bm.)

1- #8 m₂(E) bar Cut to fit

1- #6 m₁(E) bar Each Face, typ. btwn. bms.

12" typ.

12" typ.

- #4 s₁(E) bars at 12" cts. typ. between beams

(Expansion)

2-#4 $m(E)$ bars at 15" cts.
Each Face, typ. btwn. bms.

90 Lbs. Roofing
Felt, typ.

2'-0" typ.

2" min.
typ.

1-#8 $m_2(E)$
bar (Ea. Bm.)

1" P.J.F. on
Vert. Face

1/2" P.J.F.

1-#8 $m_2(E)$ bar
Cut to fit

1/8"

Side retainer

1-#6 $m_1(E)$
bar Each Face,
typ. btwn. bms.

#4 $s(E)$
bars at 12" cts.
typ. btwn.
bms.

P.J.F.

$v(E)$ bars
(See shf. of)

Anchor Bolts
with
washer
under nut.

Diagram 1: $BARS\ s(E)\ \&\ s_1(E)$

Diagram 2: $BAR\ s_2(E)$

Diagram 3: $BAR\ x\ (E)$

Reinforcement bars in diaphragm are billed with superstructure on sheet of .

Concrete in diaphragm is included with Concrete Superstructure on sheet of .

The $s(E)$, $s_1(E)$, $s_2(E)$ and $x(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

See sheet of for anchor bolt details.

Horizontal dimensions for Sec. B-B and Sec. C-C are along \bar{C} of beam unless otherwise noted.



DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

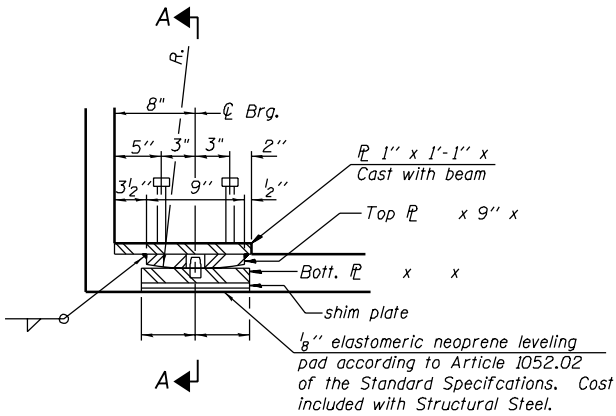
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -

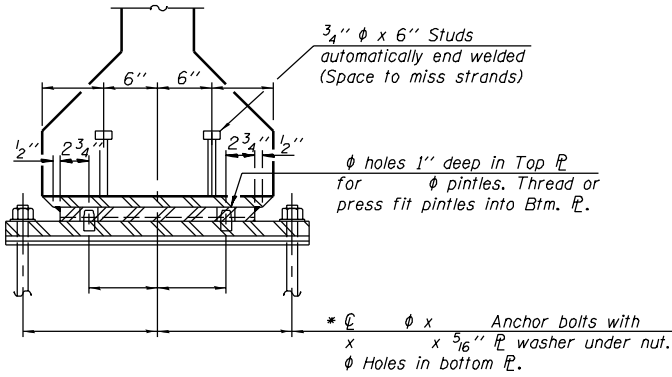
- SHEETS

Contract #



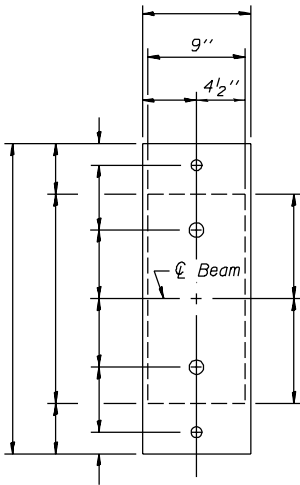
SECTION AT ABUT.

FIXED BEARING

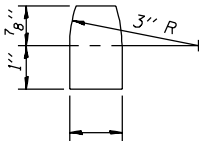


SECTION A-A

* Anchor bolts may be built into the masonry or drilled and grouted in place after all beams have been erected. See sheet of for anchor bolt installation.



PLAN OF
TOP & BOTTOM PLATES



PINTLE

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS

Concrete

Appr. Pav't.

at 50° F

See Detail Sheet of

$a_3(E)$

$a_4(E)$

$a_5(E)$

1/2"

2'-6"

at lowest beam

Back of Abut.

Inserts for $\frac{3}{4}" \phi \times 2'-0"$ Threaded Dowel Rods Space to miss strands

used into diaphragm.

slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.

Roofing felt shall be bonded to side embedded into

Diagram 1 (Left):

- Labels: \varnothing Pier, Rt.L's , $m(E)$, $s_1(E)$, $m(E)$, $m_1(E)$, G_{67} , $m_2(E)$.
- Dimensions: $1''$ (twice), $3''$ (twice), $4''$ (twice), $1\frac{1}{2}''$ cl., $2''$, $3''$.

Diagram 2 (Right):

- Labels: \varnothing Pier, Rt.L's , $m(E)$, $s(E)$, $m(E)$, $m_1(E)$, G_{67} , $m_2(E)$.
- Dimensions: $1''$ (twice), $3''$ (twice), $4''$ (twice), $1\frac{1}{2}''$ cl., $1\frac{1}{2}''$ cl., $3''$.

Diagram 3 (Bottom):

- Labels: $v(E)$ bars (See sht. of), $\frac{1}{2}''$ P.J.F.

Technical drawing showing a cross-section of a reinforced concrete beam with a steel reinforcement cage. The drawing includes the following specifications and dimensions:

- Top Reinforcement:** - #4 m(E) bars at 15" cts. Each Face, typ. btwn. bms.
- Roofing:** 90 Lbs. Roofing Felt, typ.
- Beam Dimensions:**
 - Total width: 2'-0" typ.
 - Central web width: 2" min. typ.
 - Longitudinal bar spacing: 12" typ. cts. typ. btwn. bms.
- Reinforcement Details:**
 - 1- #8 m₂(E) bar (Ea. Bm.)
 - 1- #8 m₂(E) bar Cut to fit
 - 1- #6 m₁(E) bar Each Face, typ. btwn. bms.
 - #4 s₁(E) typ. bars at 12" typ. cts. typ. btwn. bms.

- #4 m(E) bars at 15" cts.
 Each Face, typ. btwn. bms.

90 Lbs. Roofing
 Felt, typ.

2'-0" typ.

2" min. typ.

1- #8 m₂(E) bar (Ea. Bm.)

1" P.J.F. on Vert. Face

1/2" P.J.F.

1- #8 m₂(E) bar Cut to fit

1/8"

Side retainer

1- #6 m₁(E) bar Each Face, typ. btwn. bms.

P.J.F. typ.

- #4 s(E) bars at 12" typ. cts. typ. btwn. bms.

@ Ø x anchor bolts with 1/2" washer and nut.

Side of bottom flange of beam

$\frac{1}{8}''$ cl.

$5/8''$

$5/16$

$5/8''$

$5/8''$

$5/2''$

$5/8''$

$2\frac{3}{4}''$ typ.

$\phi 1\frac{3}{4}'' \phi$ Hole, typ.

$5/8''$

$5/2''$

$5/8''$

$5/8''$

$4''$

$9''$

$7\frac{9}{16}''$

$7\frac{9}{16}''$

$4''$

$18''$

Diagram of a stepped bar with dimensions:

- Left end: $s(E)$ (total height), $s_1(E)$ (height of the first step).
- First step: 6" (width).
- Second step: 6" (width).
- Right end: 4'-0" (total length).
- Label: $\text{BAR } x(E)$

DESIGNED -	-	200
CHECKED -	EXAMINED	ENGINEER OF BRIDGE DESIGN
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

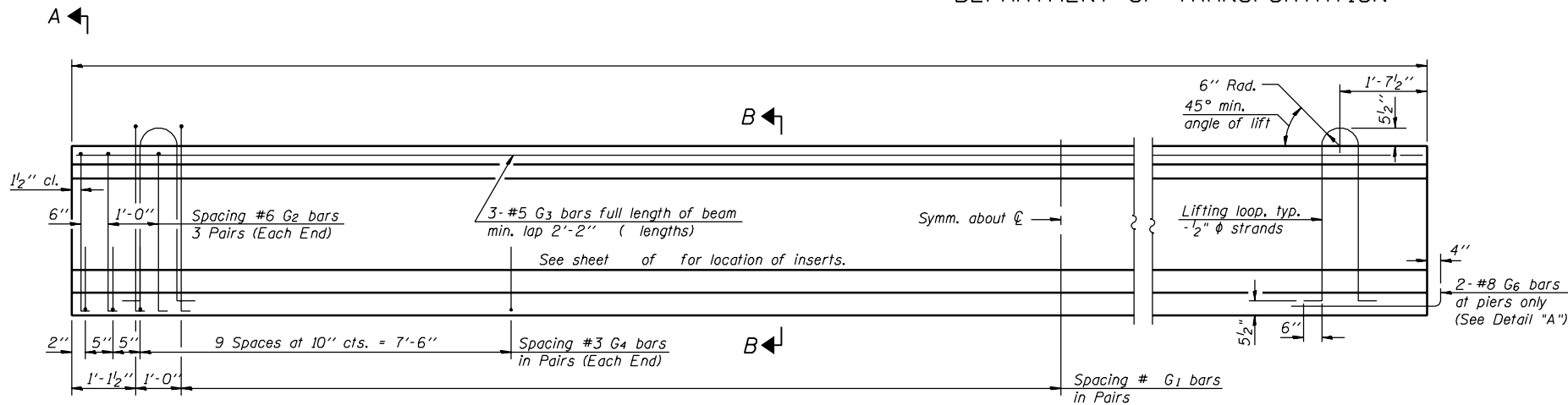
10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

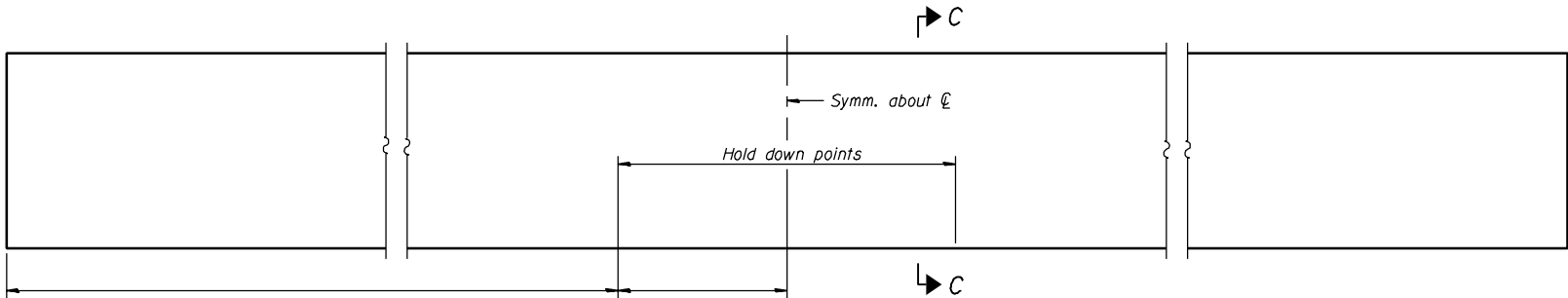
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. -
- SHEETS

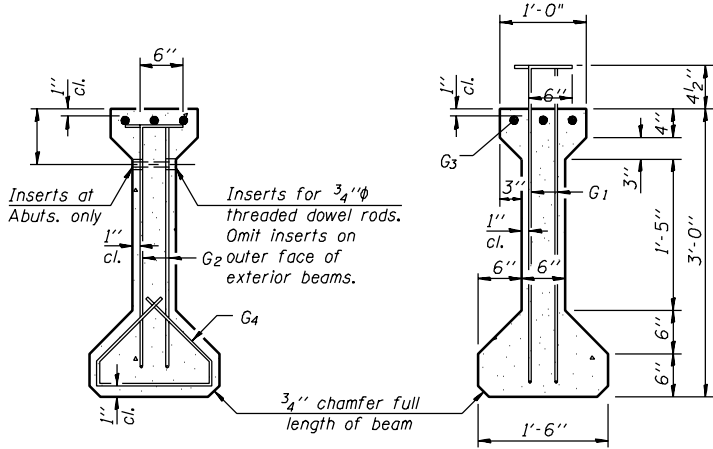
Contract #



ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

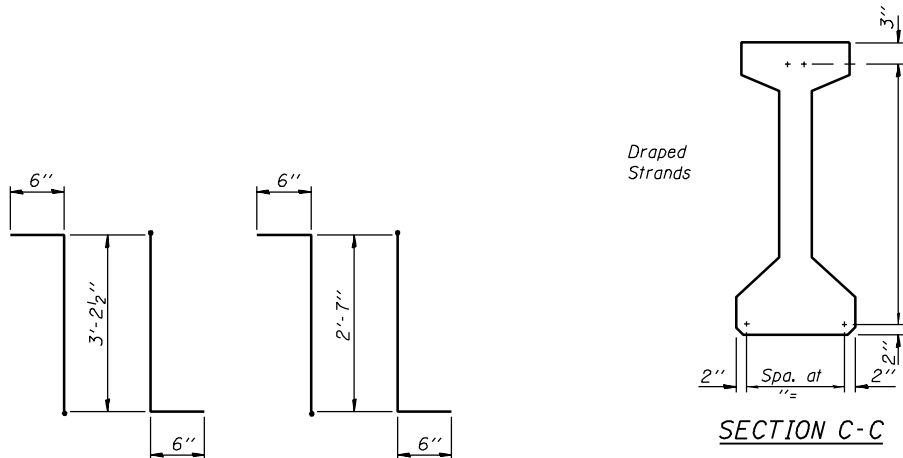


ELEVATION OF BEAM
(Showing Prestressing Steel)



SECTION A-A

SECTION B-B



SECTION C-C

*BAR LIST

Bar	No.	Size	Length	Shape
G1		#	4'-2 1/2"	7L
G2		#6	3'-7"	7L
G3		#5		
G4		#3	2'-7"	
G6		#8	3'-6"	

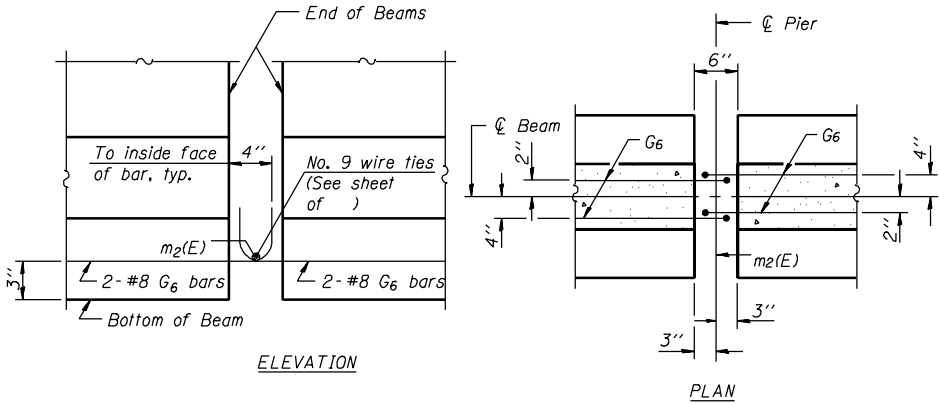
*For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	

NOTES

Inserts for 3/4" ϕ threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60. Lifting loops shall be 1/2" ϕ 270 ksi strands, as shown. Required release strength, f'ci, shall be psi. Reinforcement bars designated (E) shall be epoxy coated.



ELEVATION

PLAN

DETAIL "A"

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

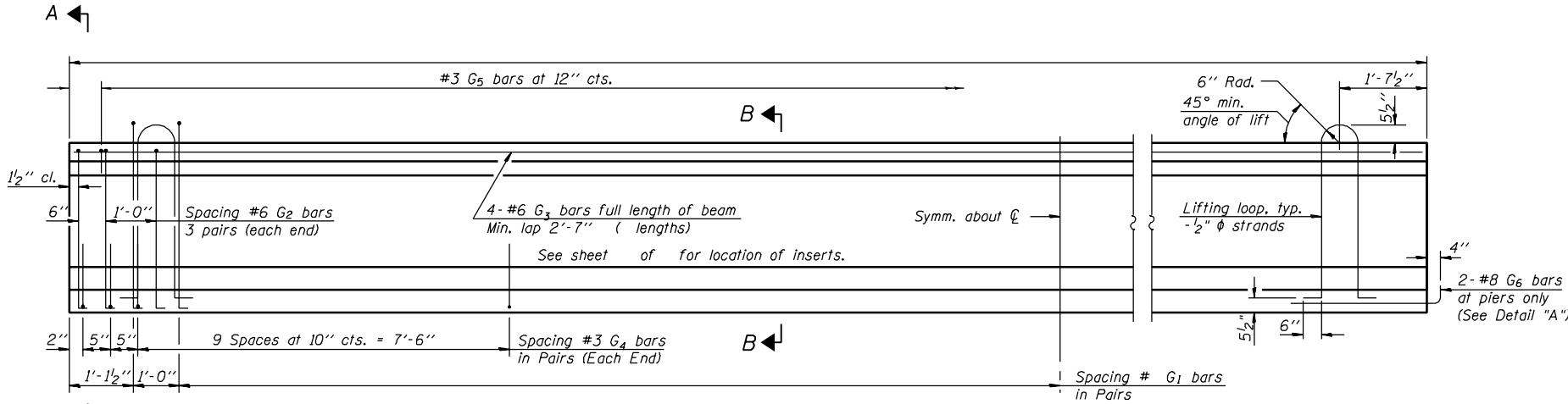
EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

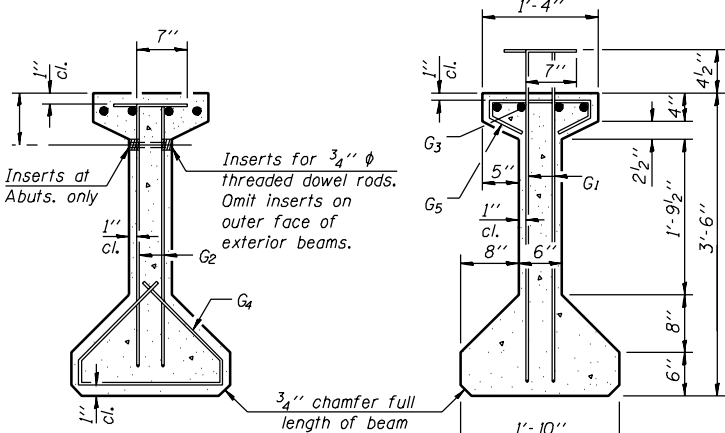
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. -
SHEETS

Contract #

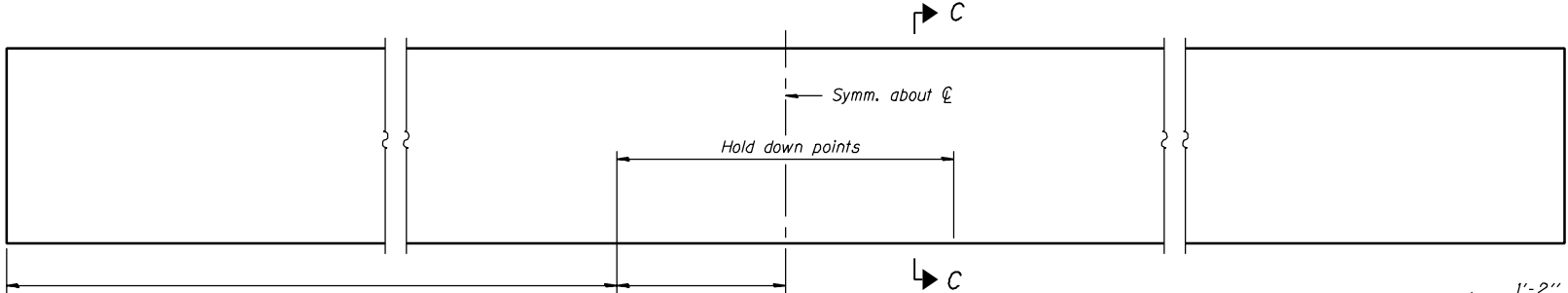


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

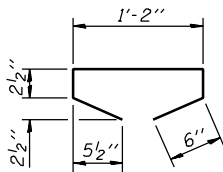


SECTION A-A

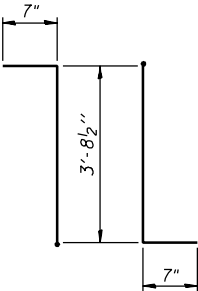
SECTION B-B



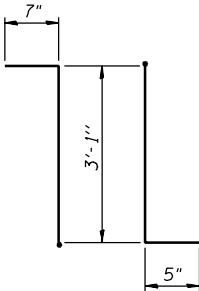
ELEVATION OF BEAM
(Showing Prestressing Steel)



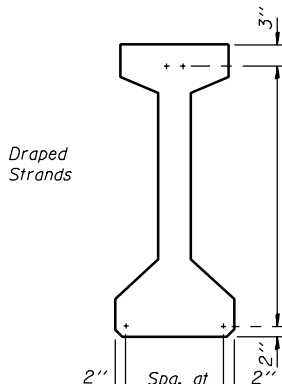
BAR G5



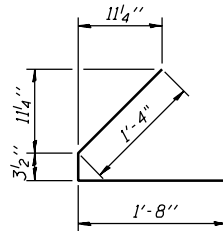
BAR G1



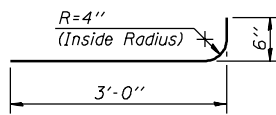
BAR G2



SECTION C-C



BAR G4



BAR G6

*BAR LIST

Bar	No.	Size	Length	Shape
G1		#	4'-10 1/2"	7L
G2		#6	4'-1"	7L
G3		#6		
G4		#3	3'-3 1/2"	
G5		#3	2'-7"	
G6		#8	3'-6"	

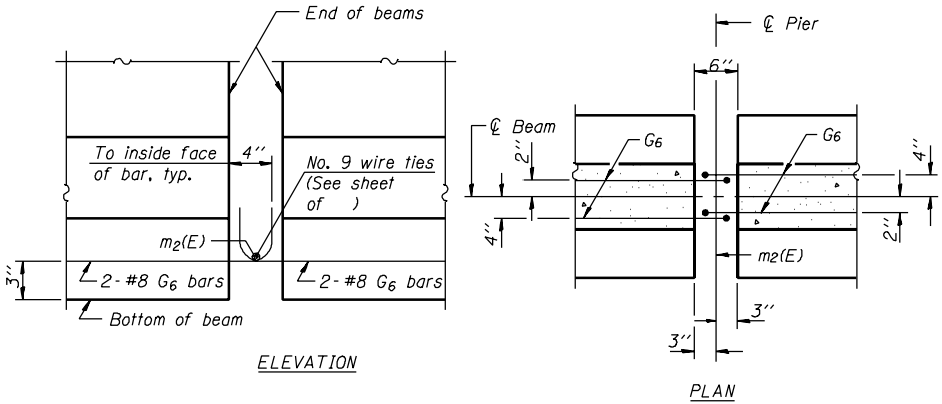
*For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	

NOTES

Inserts for 3/4" ϕ threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60. Lifting loops shall be 1/2" ϕ 270 ksi strands, as shown. Required release strength, f'ci, shall be psi. Reinforcement bars designated (E) shall be epoxy coated.



ELEVATION

PLAN

DETAIL "A"

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

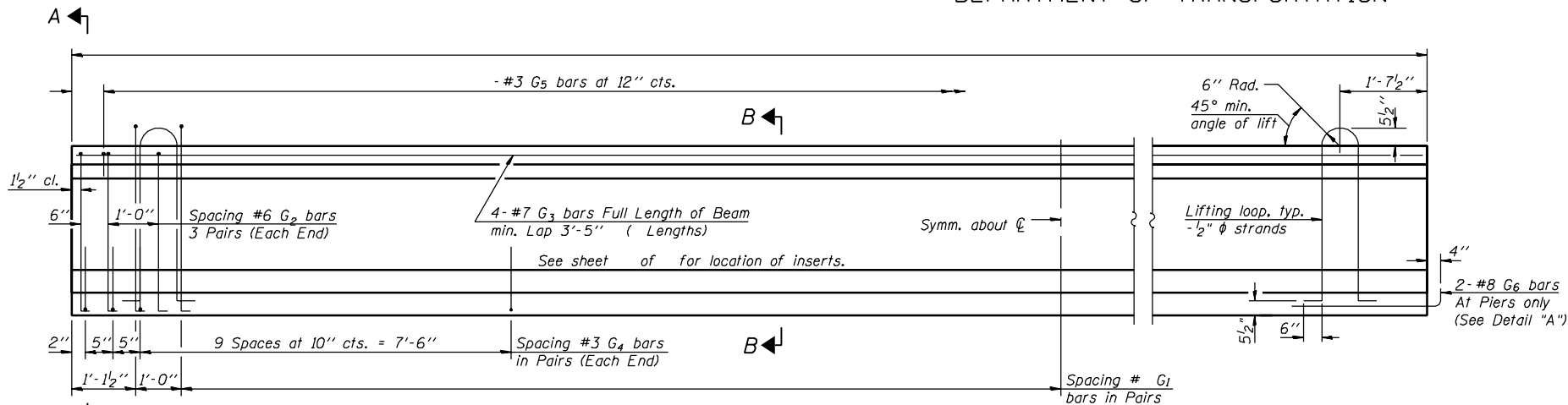
EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

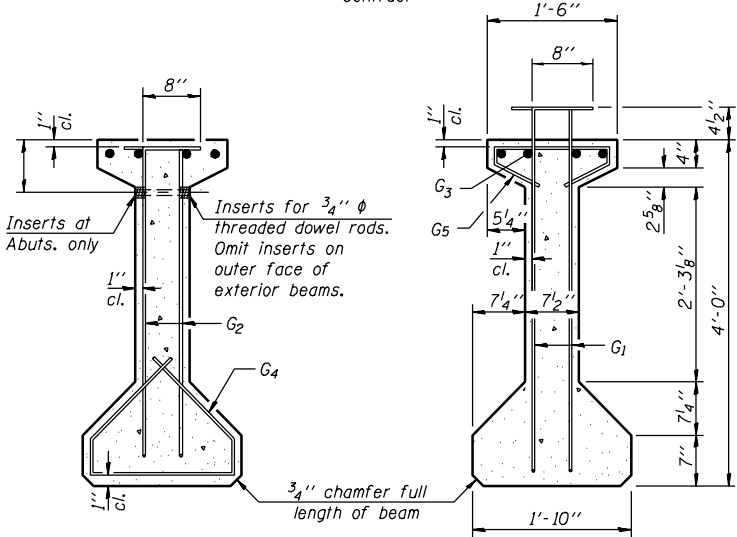
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. -
- SHEETS

Contract #

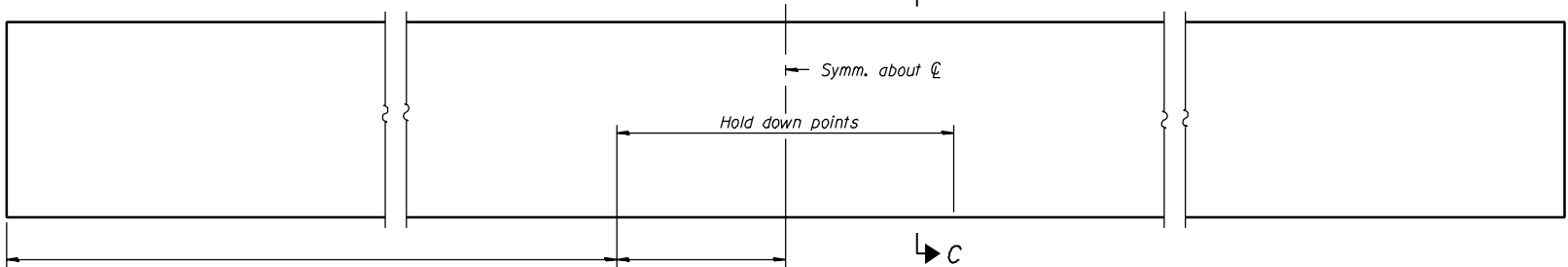


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

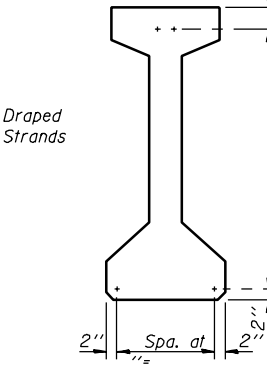


SECTION A-A

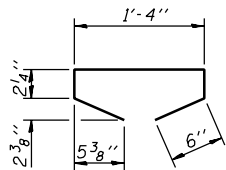
SECTION B-B



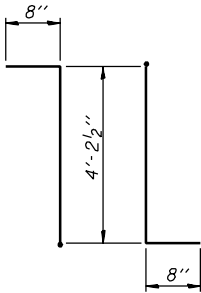
ELEVATION OF BEAM
(Showing Prestressing Steel)



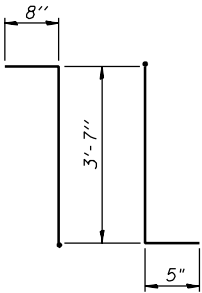
SECTION C-C



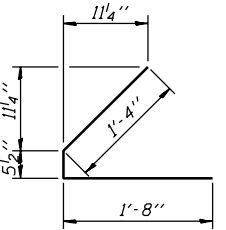
BAR G5



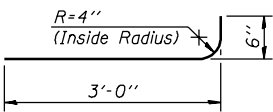
BAR G1



BAR G2



BAR G4



BAR G6

*BAR LIST

Bar	No.	Size	Length	Shape
G1		#	5'-6 1/2"	7L
G2		#6	4'-8"	7L
G3		#7		
G4		#3	3'-5 1/2"	
G5		#3	2'-8 1/2"	
G6		#8	3'-6"	

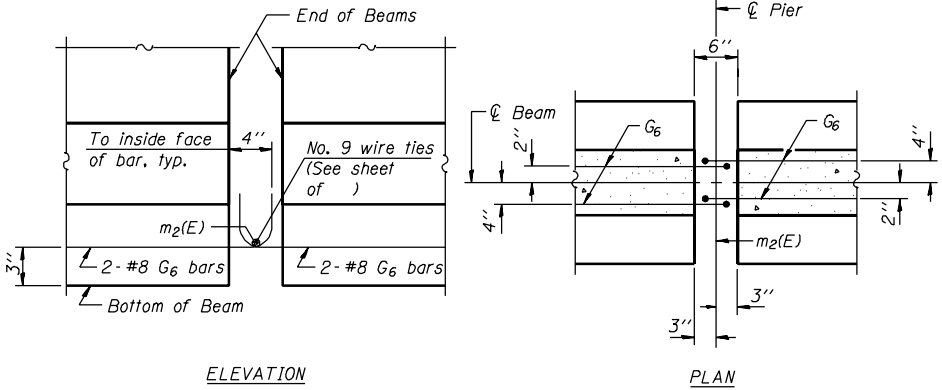
*For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	

NOTES

Inserts for 3/4" ϕ threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60. Lifting loops shall be 1/2" ϕ -270 ksi strands, as shown. Required release strength, f'ci, shall be psi. Reinforcement bars designated (E) shall be epoxy coated.



ELEVATION

PLAN

DETAIL "A"

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

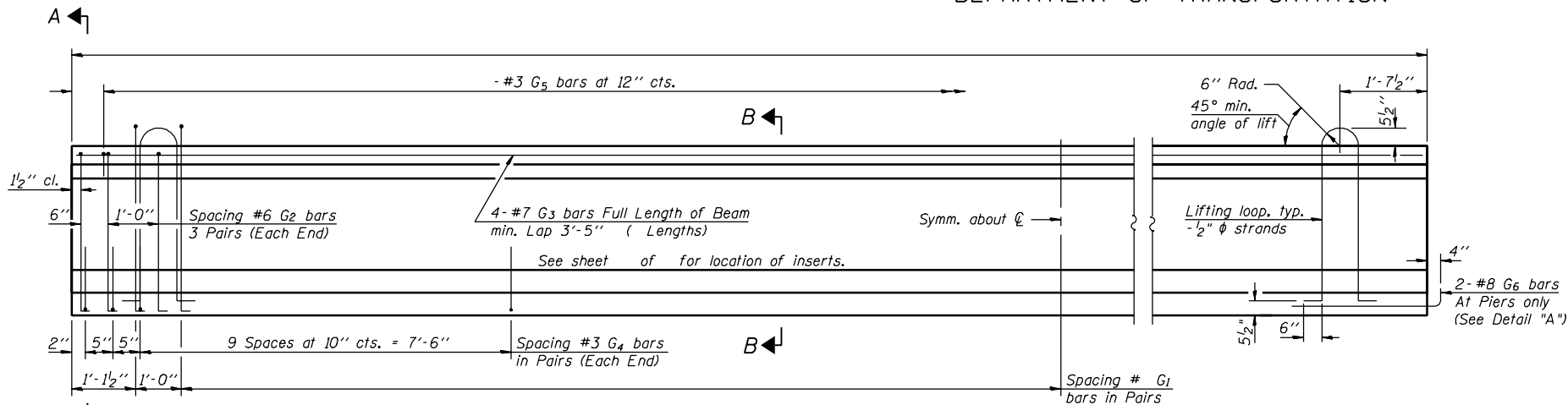
EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

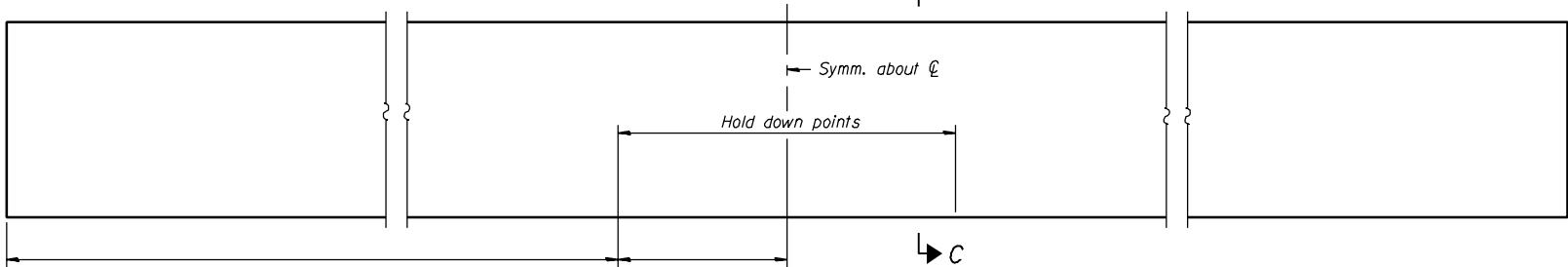
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	-	-
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. -
- SHEETS

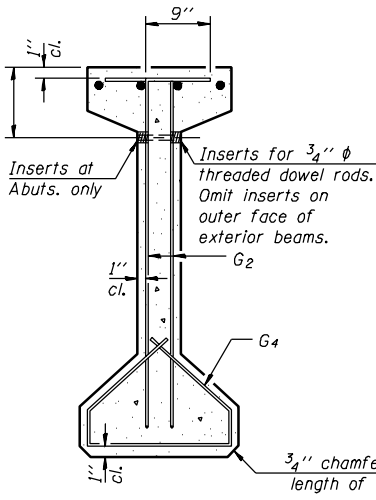
Contract #



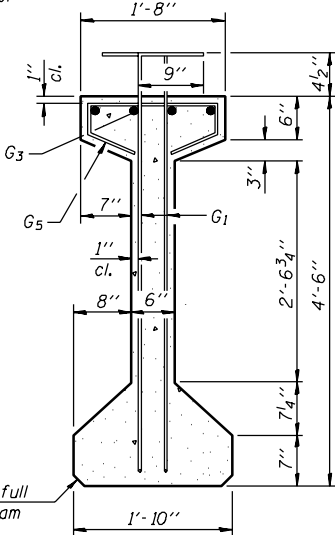
ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)



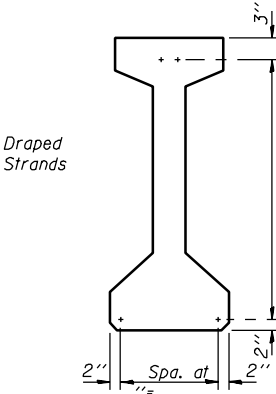
ELEVATION OF BEAM
(Showing Prestressing Steel)



SECTION A-A



SECTION B-B



SECTION C-C

*BAR LIST

Bar	No.	Size	Length	Shape
G1		#	6'-3"	TL
G2		#6	5'-3"	TL
G3		#7		
G4		#3	3'-4 1/2"	
G5		#3	3'-5"	
G6		#8	3'-6"	

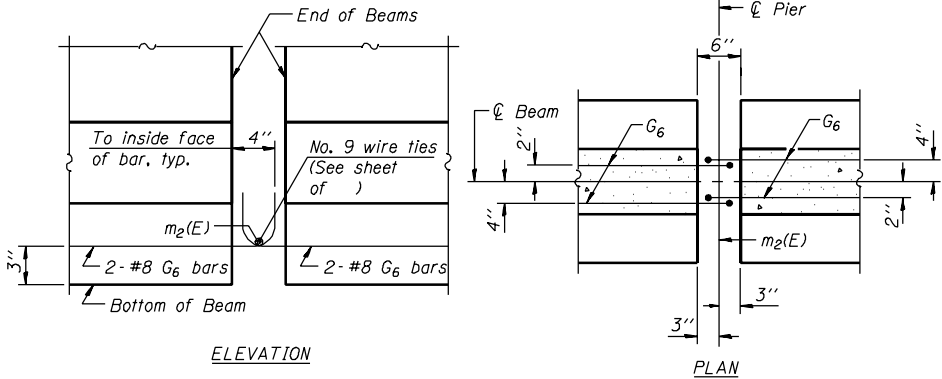
*For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	

NOTES

Inserts for 3/4" ϕ threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60.
Lifting loops shall be 1/2" ϕ 270 ksi strands, as shown.
Required release strength, f'ci, shall be psi.
Reinforcement bars designated (E) shall be epoxy coated.



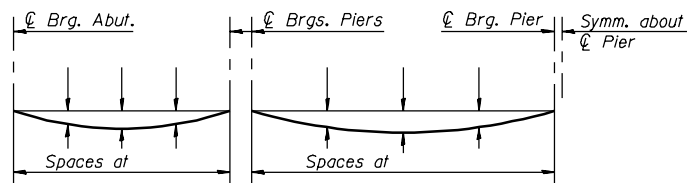
ELEVATION

PLAN

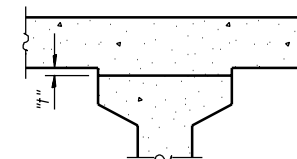
DETAIL "A"

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

EXAMINED	ENGINEER OF BRIDGE DESIGN
PASSED	ENGINEER OF BRIDGES AND STRUCTURES



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-		
-	-	-		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. -
- SHEETS

Contract #

DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

<i>Location</i>	<i>Station</i>	<i>Offset</i>	<i>Theoretical Grade Elevations</i>	<i>Theoretical Grade Elevations Adjusted For Dead Load Deflection</i>

DESIGNED -	-	200
CHECKED -	EXAMINED	
DRAWN -	ENGINEER OF BRIDGE DESIGN	
CHECKED -	PASSED	
	ENGINEER OF BRIDGES AND STRUCTURES	